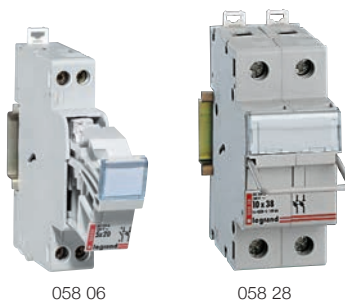




Practical and completely safe



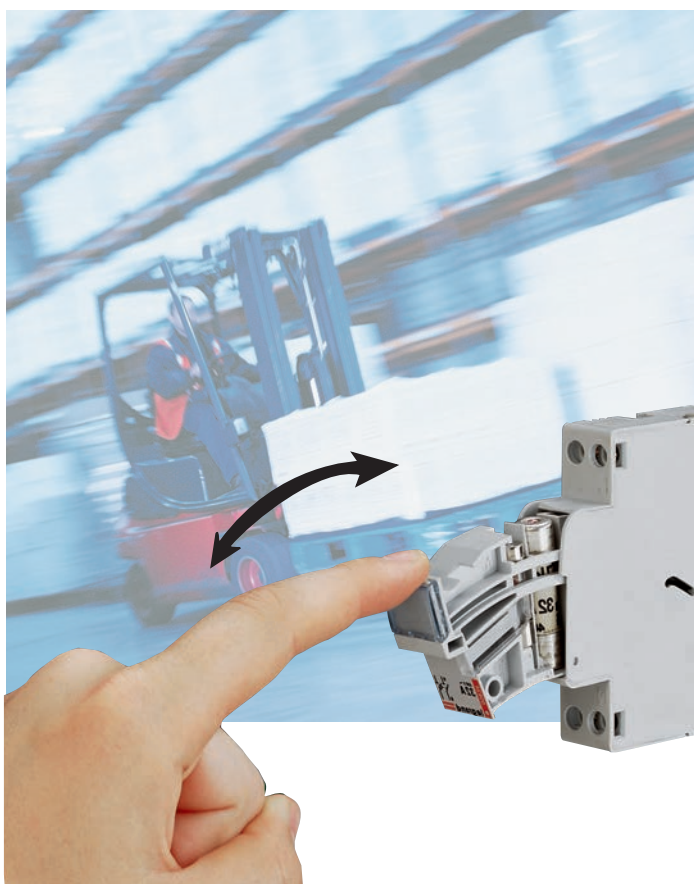
058 06

058 28

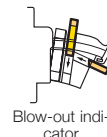


Dimensions (p. 100)

Conform to standard IEC 60269-2/2.1 and to NF C 63-210. Isolators conform to IEC 60947-3.
Icc: - 20 kA with 8.5 x 31.5 cartridge fuse
- 100 kA with 10 x 38 cartridge fuse
Fuse not supplied



Pack	Cat. No.	Modular fuse carriers	Voltage	Number of 17.5 mm modules
		Cartridge dimensions (mm)		
		Single pole		
10	058 06 (1)	8.5 x 32	400 V~	1
10	058 08	10 x 38	500 V~	1
		Single pole + neutral		
10	058 18	10 x 38	500 V~	1
		Double pole		
5	058 28	10 x 38	500 V~	2
		3-pole		
3	058 38	10 x 38	500 V~	3
		3-pole + neutral		
2	058 48	10 x 38	500 V~	4



Blow-out indicator

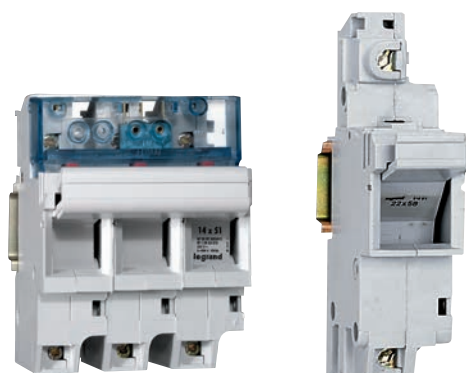
Pack	Cat. No.	Accessories
10	057 90	Blow-out indicator 250 V~
1	057 96	Early break N/O + N/C contact auxiliary 5 A - 250 V~ (0.5 mod.)
3	057 99	Padlock support suitable for ø4mm padlocks

(1) Previously 8.5 x 31.5

- Each fuse carrier is designed to take:
 - a blow-out indicator
 - a padlock
- Cartridge totally visible
- Class II insulation along the entire length of the carrier

SP fuse carriers

With protected terminals



215 04

216 01

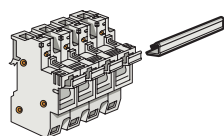
Conform to IEC 60269-2
Veritas approved
Height under front plate : 44 mm
3 rail mounting or panel mounting
IP2X - IP2XC under front plate

Pack	Cat. No.	SP 51 for HRC fuses 14 x 51		
			Connection	No of 17.5 mm modules
5	215 01	Single pole	1 x 35 mm ² or	1.5
1	215 04	Triple pole	2 x 16 mm ²	4.5
SP 58 for HRC fuses 22 x 58				
3	216 01	Single pole 1 x 50 mm ²	2 or	6
1	216 04	Triple pole	2 x 25 mm ²	
With 5 A - 250 V ~ changeover micro-switch				
Signalling and cut-out functions				
Supplied with 3 x 2.8 mm clips				
1	216 36	Triple pole	1 x 50 mm ² or 2 x 25 mm ²	6

Accessory

Link handle for association of single pole units

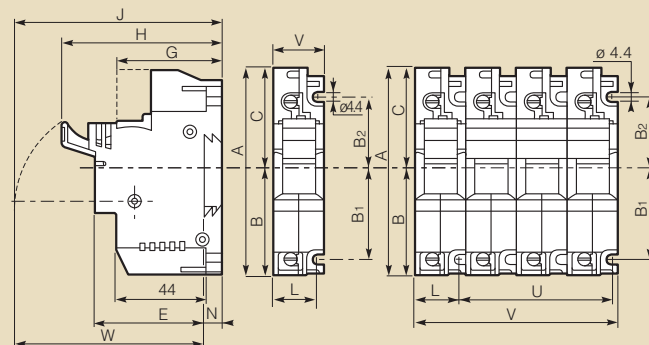
SP 51 or SP 58
Length 300 mm
Can be cut to required length
HRC cartridge fuses



SP fuse carriers

With protected terminals

SP 51 and SP 58



In mm	A	B	B ₁	B ₂	C	E	G	H 1 P	H multi.	J 1 P
SP 51	106	54.5	45	35	51.5	55	53	81	84	96
SP 58	140	74	65	45	66	59	53	87	90	111

In mm	J multi.	L	N	U 2 P	U 3 P	U 4 P	V 1 P	V 2 P	V 3 P	V 4 P	W 1 P	W multi.
SP 51	99	20.7	9	26.5	53	79.5	26.5	53	79.5	106	87	90
SP 58	114	27	9	36	72	108	36	72	108	144	101	109

Choice of equipment

Type	Rated current	Maximum cartridge rating					
		400 V±		500 V±		690 V±	
		gG	aM	gG	aM	gG	aM
SP 51	50 A	50	50	50	40	25	25
SP 58	100 A (125 A in 400 V)	125	125	100	100	50	50

These values are standardised according to IEC 60269-2/2-1
They can be reduced under certain specific applications

Index of protection: IP 2X - IP 2XC - under casing

Equipment derating

Recommended for equipment exposed to high temperatures:

- Ambient temperature over 35° C: derate fuse by one rating per 10° C (UTE C 20-051 IEC 60943)
- Side-by-side equipment in simultaneous function

2 - 3 devices	0.9 x I _n
4 - 5 devices	0.8 x I _n
6 - 7 - 8 - 9 devices	0.7 x I _n
≥ 10 devices	0.6 x I _n

This coefficient is to be applied on the nominal rating of the base (IEC 60439-1)

- Uninterrupted usage: it may be necessary to upgrade the bases by one size

Domestic fuse carriers



Dimensions (p. 100)

With label-holders
With insulated carrier class II O, padlockable
Coupling via supply busbars
Shielded terminals capacity 2 x 10 mm²
Indicator to signal blown fuse with Cat. No. 057 90

For domestic cylindrical cartridge fuses

Pack	Cat. No.	For domestic cylindrical cartridge fuses		
		Conform to NF C 61-203 and IEC 60269-3/3.1 Fuse not supplied		
		Single pole For domestic cartridges	Cartridge dimensions (mm)	Number of 17.5 mm modules
10	058 10	10 A - 230 V~	8.5 x 23	1
10	058 11	16 A	10.3 x 25.8	1
10	058 12	20 A - 400 V~	8.5 x 31.5	1
10	058 13	25 A	10.3 x 31.5	1
10	058 14	32 A	10.3 x 38	1
		Single pole + neutral		
10	058 21	16 A - 230 V~	10.3 x 25.8	1
10	058 24	32 A - 400 V~	10.3 x 38	1
10	058 20	10 A - 230 V~	8.5 x 23	1
10	058 22	20 A - 400 V~	8.5 x 31.5	1

For miniature cylindrical cartridge fuses

Pack	Cat. No.	For miniature cylindrical cartridge fuses		
		To protect sensitive equipment: transformers, electronic equipment, etc. Conform to standard IEC 60127-6 Fuse not supplied (see opposite)		
		Single pole Cartridge dimensions (mm)	Voltage	Number of 17.5 mm modules
5	058 00	5 x 20	250 V~	1

Domestic cartridge fuses



Pack	Cat. No.	Miniature type 5 x 20			
		Instant reaction fuse - Ceramic body Conform to IEC 60127 - NF EN 60127 - VDE 0820-1 High rupture capacity (A) For use with dimmers, Viking terminals and emergency lighting units			
		Rating (Amps)	Voltage~ (Volts)	Rupture capacity (Amps)	
10	102 02	0.2			
10	102 05	0.5			
10	102 06	0.63			
10	102 10	1.0			
10	102 12	1.25			
10	102 16	1.6			
10	102 20	2.0	250	1500	
10	102 25	2.5			
10	102 30	3.15			
10	102 50	5.0			
10	102 63	6.3			
10	102 96 ⁽¹⁾	10.0	250	500	
		Cylindrical - without indicator			
		Rating (Amps)	Voltage~ (Volts)	Rupture capacity (Amps)	Protected section (mm ²) Copper
		6.3 x 23			
10	103 06 ⁽¹⁾	6	230	6 000	1.5
		8.5 x 23			
10	113 02	2			
10	113 04	4			
10	113 06	6	230	6 000	1.5
10	113 10	10			
		10.3 x 25.8			
10	116 06 ⁽²⁾	6			
10	116 10 ⁽²⁾	10	230	6 000	2.5
10	116 16 ⁽²⁾	16			
		8.5 x 31.5			
10	123 01	1			
10	123 02	2			
10	123 04	4			
10	123 06	6			
10	123 08	8	400	20 000	2.5
10	123 10	10			
10	123 12	12			
10	123 16	16			
10	123 20	20			
		10.3 x 31.5			
10	126 16	16			
10	126 20	20	400	20 000	4
10	126 25	25			
		10.3 x 38			
10	133 32	32	400	20 000	6
		Neutral links			
10	123 00	8.5 x 31.5			
10	133 00	10 x 38			

(1) Overrating not described by standards
(2) Conform to BS 1361 (1971)

HRC cartridge fuses



Technical data and dimensions (p. 64 - 65)

Pack	Cat. No.	Cylindrical type gG			
		Conform to EN 60269-1, IEC 60269-1, and 2 Veritas approved			
		8 x 32 (previously 8.5 x 31.5)			
	Without indicator	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)	
10	123 01	1	400	20000	
10	123 02	2			
10	123 04	4			
10	123 06	6			
10/100	123 10	10			
10		10	500	100000	
10/100	123 16	16			
	Without indicator	10 x 38 HRC			
10	133 94	0.5			
10	133 01	1			
10	133 02	2			
10	133 04	4			
10	133 06	6			
10	133 08	8			
10	133 10	10			
10	133 16	16			
10	133 20	20			
10	133 25	25			
	Without striker	14 x 51 HRC			
10	143 02	2	500	100000	
10	143 04	4			
10	143 06	6			
10	143 10	10			
10	143 16	16			
10	143 20	20			
10	143 25	2	500	100000	
10	143 32	32			
10	143 40	40			
10	143 50 ⁽¹⁾	50			
	Without striker	22 x 58 HRC			
10	153 16	16	500	100000	
10	153 20	20			
10	153 25	25			
10	153 32	32			
10	153 40	40			
10	153 50	50	500	100000	
10	153 63	63			
10	153 80	80			
10	153 96	100			
10	153 97 ⁽¹⁾	125			400

Pack	Cat. No.	Cylindrical type aM (motor rated)		
		Conform to EN 60269-1, IEC 60269-1 and 2 Veritas approved		
		Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)
	Without indicator	10 x 38 HRC		
10	130 95	0.50	500	100000
10	130 01	1		
10	130 02	2		
10	130 04	4		
10	130 06	6		
10	130 08	8		
10	130 10	10		
10	130 12	12	400	
10	130 16	16		
10	130 20 ⁽²⁾	20		
10	130 25 ⁽²⁾	25		
	Without striker	14 x 51 HRC		
10	140 08	8	500	100000
10	140 10	10		
10	140 12	12		
10	140 16	16		
10	140 20	20		
10	140 25	25		
10	140 32	32		
10	140 40	40	400	
10	140 50 ⁽¹⁾	50		
	Without striker	22 x 58 HRC		
10	150 25	25	500	100000
10	150 32	32		
10	150 40	40		
10	150 50	50		
10	150 63	63		
10	150 80	80		
10	150 96	100		
10	150 97	125	400	

Neutral links			
10	123 00	8 x 32 (previously 8.5 x 31.5)	
10	133 00	10 x 38	
10	143 00	14 x 51	
10	153 00	22 x 58	

Isolating fuse carriers 8.5 x 32 and 10 x 38 (p. 58)

(1) Overrating described by standards
(2) Overrating not described by standards



171 60 (with striker)



(1) Overrating not described by standards

Blade type cartridge fuses

Bases



Technical data and dimensions (p. 64)

Pack	Cat. No.	Bases for blade type DIN fuses		
Screw mounting				
		Size	Number of pole	Amps
3	160 00	00	1 P	100 A
1	160 04	00	3 P	100 A
3	162 00	00	1 P	125/160 A
1	162 04	00	3 P	125/160 A
DIN rail mounting				
3	160 01	00	1 P	100 A
1	160 05	00	3 P	100 A
DIN rail or screw mounting				
3	165 00	0	1 P	160 A
3	165 02	0	1 P	160 A
1	165 03	0	3 P	160 A
3	170 00	1	1 P	250 A
1	170 02	1	1 P	250 A
1	170 03	1	3 P	250 A
3	175 00	2	1 P	400 A
1	175 02	2	1 P	400 A
1	175 03	2	3 P	400 A

Pack	Cat No.	Accessories
5	199 02	Handle for all sizes
Separation dividers		
10	199 09	Size 00 (for cat. No 160 01 and cat. No 162 00)
10	199 15	Size 0
10	199 16	Size 1
10	199 17	Size 2
2	199 18	Size 3
Terminal shields		
For fuse bases		
10	199 20	Size 00
10	199 21	Size 0
10	199 22	Size 1
10	199 23	Size 2

Selection charts

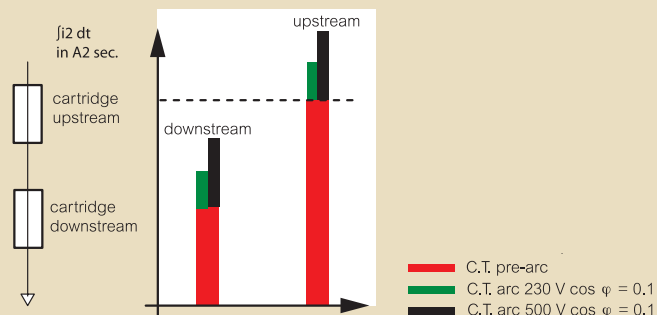
How to select a protection system ?

Depending on the type of failure, overload or short-circuit, use 2 series of data

1. Overloads: use the operating zone curves of the different protection devices. On the same row, the operating zones should not overlap

2. Short-circuits: use the Ji^2t tables. The total Ji^2t of the protection system the furthest downstream must be less than the upstream protection pre-arc Ji^2t

Example of good selection



Selection between cartridge fuses (according to IEC 60269-2-1)

Upstream rating gG cartridge fuse (A)	Downstream maximum rating determined according to class and voltage to obtain selection	
	aM	gG
2		
4	1	1
6	2	2
8	2	2
10	2	4
12	2	4
16	4	6
20	6	10
25	8	16
32	10	20
35	12	20
40	12	25
50	16	32
63	20	40
80	25	50
100	36	63
125	40	80
160	63	100
200	80	125
250	125	160
315	125	200
400	160	250
500	200	315
630	250	400

Upstream rating aM cartridge fuse (A)	Downstream maximum rating determined according to class and voltage to obtain selection	
	aM	gG
2	1	1
4	2	4
6	2	6
8	4	8
10	6	10
12	6	12
16	10	16
20	12	20
25	12	25
32	20	32
36	20	32
40	25	32
50	25	40
63	40	50
80	50	63
100	63	80
125	80	100
160	100	125
200	125	160
250	160	160
315	200	200
400	250	250
500	315	315
630	400	400

Motor protection

Motor three-phase									Cartridges															
230 V			400 V			500 V			10 x 38 ratings		14 x 51 ratings		22 x 58 ratings		S. 00 ratings		S. 0 ratings		S. 1 ratings		S. 2 ratings		S. 3 ratings	
kW	Hp	In A	kW	Hp	In A	kW	Hp	In A	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM
			0.37	0.5	1.03	0.75	1	1.5	4	2	4	2												
0.37	0.5	1.8	0.75	1	2	1.5	2	2.6	6	4	6	4												
0.75	1	3.5	1.5	2	3.5	2.2	3	3.8	8	4	8	4												
1.1	1.5	4.4	2.2	3	5	3.7	5	5.9	12	6	12	6												
1.8	2.5	7	3	4	6.6	4	5.5	6.5	16	8	16	8	16											
2.2	3	8.7	4	5.5	8.5	5.5	7.5	9	20	10	20	10	20											
3	4	11.5	5.5	7.5	11.5	7.5	10	12	25	12	25	12	25		25									
4	5.5	14.3	7.5	10	15.5	11	15	18.4		20 ⁽¹⁾	32	20	32	20	32	20								
5.5	7.5	20	11	15	22	15	20	23		20 ⁽¹⁾	50	25	50	25	50	25								
7.5	10	27	15	20	30	18.5	25	28.5			32	50	32	50	32									
10	13.5	35	18.5	25	37	25	34	39.4			40	63	40	63	40	63								
11	15	39	22	30	44	30	40	45			50 ⁽¹⁾	80	50	80	50	80								
15	20	52	25	34	51	40	54	60					100	63	100	63	100	63						
18.5	25	64	30	40	60	45	60	65						80	125	80	125	80	125					
22	30	75	37	50	72	51	70	75						80	125	80	125	80	125					
25	35	85	45	60	85	63	109	89						100	160	100	160	100	160					
30	40	103	55	75	105	80	110	112						125 ⁽¹⁾		125	200	125	200	125	200			
45	60	147	75	100	138	110	150	156									160	250	160	250				
55	75	182	90	125	170	132	180	187											200	315	200			
75	100	239	110	150	205	160	220	220											250	400	250			
80	160	260	132	180	245	220	300	310													315			
90	125	295	160	218	300																315			
110	150	356	200	270	370	250	340	360													400			
132	180	425	250	340	475	335	450	472																500
160	218	520	315	430	584	450	610	608																630

(1) 400 V max.

Blade cartridge fuses gG and aM types

The gG or aM types protect the conductors of electrical circuits in the event of overload or short-circuit

gG cartridge fuses:

The selectivity ratio is 1.6 instead of 2

The breaking capacity of 120000 A provides full protection in the most critical situations

aM cartridge fuses:

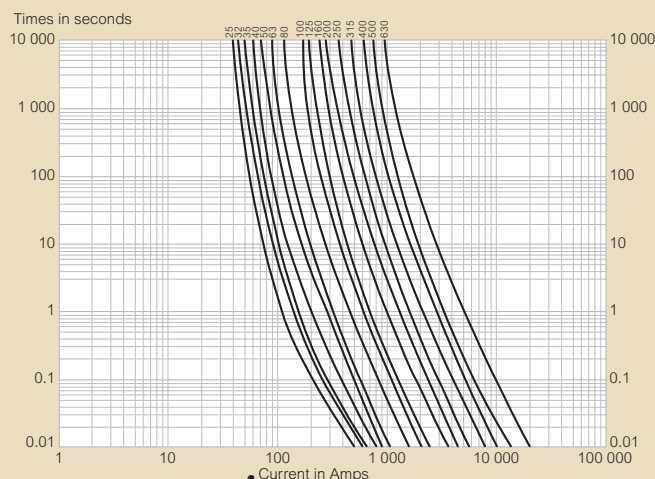
These cartridge fuses must be combined with a low-overload thermal protection device

The breaking capacity of 100000 A from size 10 x 38 upwards provides full protection in the most critical situations

Cylindrical industrial cartridge fuses can be used to protect DC circuits supplied at up to 48 V max.

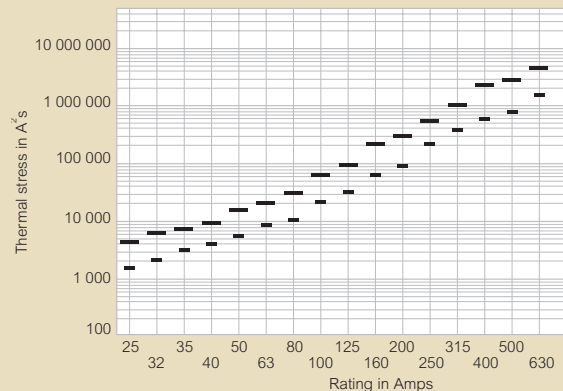
Rupture capacity curves

gG type



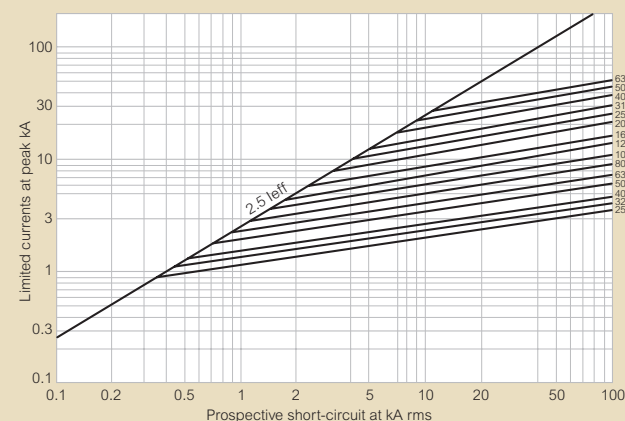
Thermal stresses $\int I^2 dt$

gG type (for 500 V~)



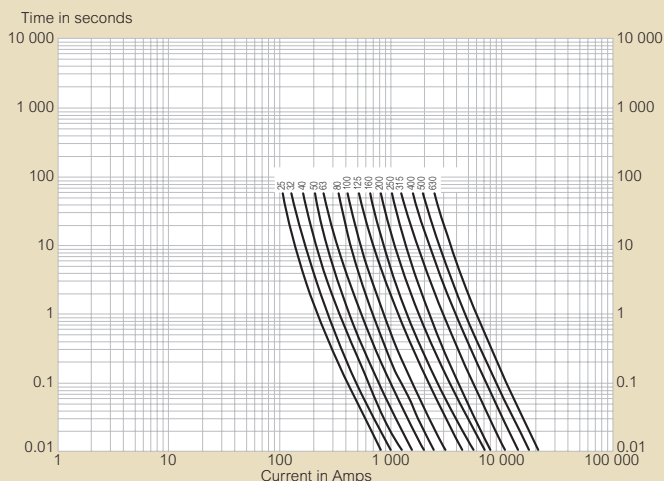
- Total maximum thermal stress for critical current
- - Pre-arc thermal stress for critical current

gG⁽¹⁾ type limitation curve

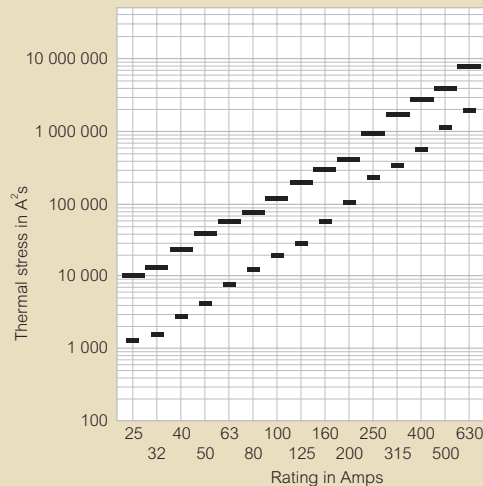


(1) For aM cartridge fuses, see technical data sheets in the Legrand e-catalogue

aM type



aM type for 500 V~ - except 1250 A for 400 V



Consumption in watts when hot, at rated current

Fuse ratings (A)	Cartridge fuses			
	gG		aM	
	Size 00	Size 0 to 4	Size 00	Size 0 to 4
25	2.1		1.3	
32	3		1.8	
35	3			
40	3.3	4.2	2.5	
50	4.5	5.5	3	
63	6	6.5	3.6	3.9
80	7	8.5	5.2	5.5
100	7.5	9.5	6	6.5
125	13	12	7	8.5
160	15	15		11.5
200		19		13.5
250		23		17
315		24		24
400		33		28
500		36		34
630		45		41

Some items sold separately

For pack quantity, please refer to numerical index pages

For trade price, please see your local HPM Legrand representative for the current price list