WESTCODE
An IXYS Company

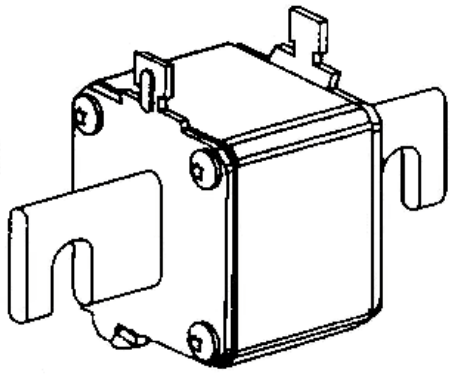
Date:- 18 Mar, 2005

Data Sheet Issue:- 1

Ultra Rapid Semiconductor Protection Fuse

European Square Body Fuses

French Standard Blade Contact
Voltage Rating 500V to 690V
Current Ratings 63A to 1400A
aR Characteristics
Sizes 0, 1, 2, 3



Key Features:

- Extremely high interrupting rating fuses for the protection of power semiconductors in accordance with IEC Standard 60269.1 and 4.
- Exceptionally low I^2t, power losses
- Highly reliable low voltage trip indicator system which conforms to UL, IEC, DIN and VDE standards
- Non Magnetic construction
- Increased technical performance gives higher ratings and a reduction in volume and weight
- Microswitch system reference : MS 3V 1-5
- Fuse holder type : SI DIN 80

Main Characteristics:

Size	Voltage	Ref:		Current rating I_N(A)	Pre-arcing I^2t @ 1 ms I^2t_p(kA^2s)	Total Clearing I^2t @ U_N (kA^2s)	Watt Losses $0.8I_N$	Watt Losses I_N	Tested Interrupting rating
0	690V	069UF0A0063B		63	0.2	1.1	7.5	14	200kA @660V (IEC) 170kA @700V (USA)
		069UF0A0080B		80	0.33	1.75	9.5	19	
		069UF0A0100B		100	0.47	2.5	13	26	
		069UF0A0125B		125	0.85	4.5	15	30	
		069UF0A0160B		160	1.6	8.5	18.5	37	
		069UF0A0200B		200	3	15.5	21.5	43	
		069UF0A0250B		250	5.8	30	25	50	
		069UF0A0315B		315	12	62	22.5	55	
		069UF0A0350B		350	15.5	80	30	60	
		069UF0A0400B		400	23	120	32.5	65	

Notes: Minimum operating voltage for integrated trip indicator = 20V
Microswitch reference : MS 3V 1-5

Size	Voltage	Ref:		Current rating I_N(A)	Pre-arcing I^2t @ 1 ms I^2t_p(Ka^2s)	Total Clearing I^2t @ U_N (Ka^2s)	Watt Losses $0.8I_N$	Watt Losses I_N	Tested Interrupting rating
1	690V	069UF1B0200B		200	2.6	13.5	22.5	45	200kA @660V (IEC) 170kA @700V (USA)
		069UF1B0250B		250	4.7	25	25.5	52	
		069UF1B0315B		315	7.5	40	32.5	65	
		069UF1B0350B		350	10.5	55	33.5	67	
		069UF1B0400B		400	19	100	34	68	
		069UF1B0450B		450	26.5	140	35	70	
		069UF1B0500B		500	37	195	36	72	
		069UF1B0550B		550	52	280	37.5	75	
		069UF1B0630B		630	75	390	42.5	85	
		069UF1B0800B		800	140	800	52.5	105	

Notes: Minimum operating voltage for integrated trip indicator = 20V
Microswitch reference : MS 3V 1-5

Size	Voltage	Ref:		Current rating I_N(A)	Pre-arcing I^2t @ 1 ms I^2t_p(kA^2s)	Total Clearing I^2t @ U_N (kA^2s)	Watt Losses $0.8I_N$	Watt Losses I_N	Tested Interrupting rating
2	690V	069UF2B0400B		400	15	80	32.5	75	200kA @660V (IEC) 170kA @700V (USA)
		069UF2B0450B		450	20	115	40	80	
		069UF2B0500B		500	28	145	45	90	
		069UF2B0550B		550	37	195	47.5	95	
		069UF2B0630B		630	54	280	52.5	105	
		069UF2B0700B		700	76	400	55	110	
		069UF2B0800B		800	115	600	60	120	
		069UF2B0900B		900	170	900	62.5	125	

Notes: Minimum operating voltage for integrated trip indicator = 20V
Microswitch reference : MS 3V 1-5

Main Charactreistics continued……

Size	Voltage	Ref:		Current rating I_N(A)	Pre-arcing I^2t @ 1 ms I^2t_p(kA^2s)	Total Clearing I^2t @ U_N (kA^2s)	Watt Losses 0.8I_N	Watt Losses I_N	Tested Interrupting rating
3	690V	069UF3B0500B		500	19	100	52.5	105	200kA @660V (IEC) 170kA @700V (USA)
		069UF3B0550B		550	27	140	55	110	
		069UF3B0630B		630	40	210	60	120	
		069UF3B0700B		700	55	300	62.5	125	
		069UF3B0800B		800	95	490	65	130	
		069UF3B0900B		900	135	700	67.5	135	
		069UF3B1000B		1000	170	900	77.5	155	
		069UF3B1100B		1100	240	1260	80	160	
		069UF3B1250B		1250	350	1850	90	180	
		069UF3B1400B		1400	480	2500	100	200	

Notes: Minimum operating voltage for integrated trip indicator = 20V
Microswitch reference : MS 3V 1-5

Electrical Characteristics:

Times vs current characteristics

The curves shown on page 4 indicate the pre-arcing time for each rated current as a function of RMS value of pre-arcing current I:

- Tolerances on this current ± 8%
- Beyond 30 sec or 10 sec, small overloads must be eliminated by another device.

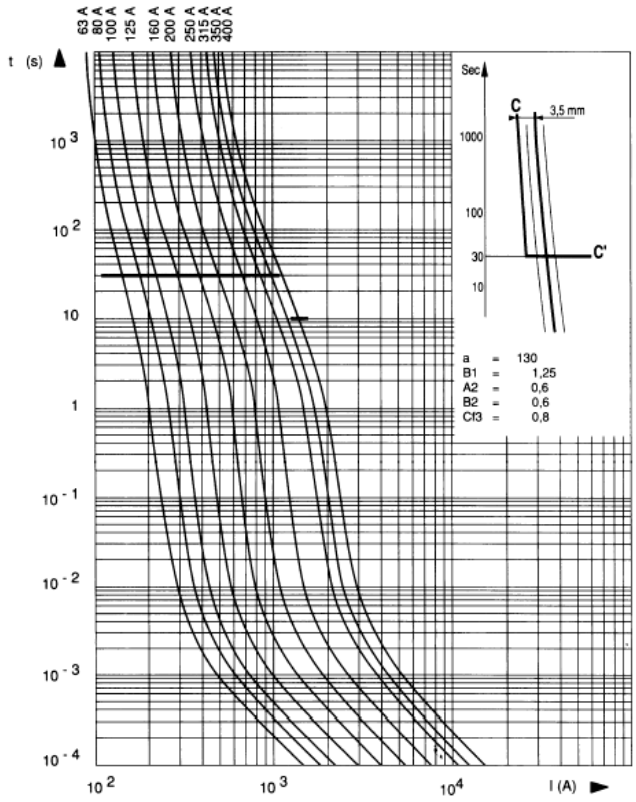
Curve CC' represents the maximum times taken by the associated device to clear small overloads; only its horizontal line is represented.

Its oblique line must be plotted according to sketch in top right corner:

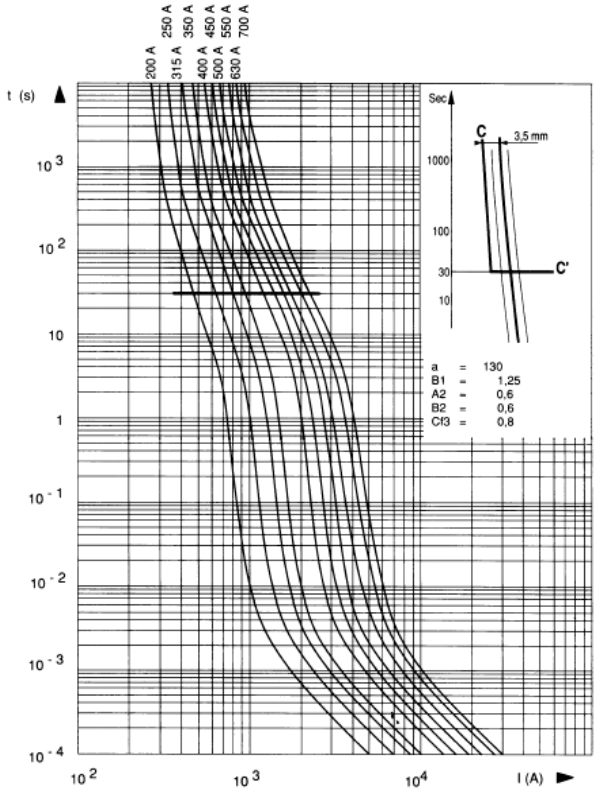
- The intersection of the fuse and CC' curves indicates the minimum breaking current I_{pm} of the fuse.

Times vs current characteristics

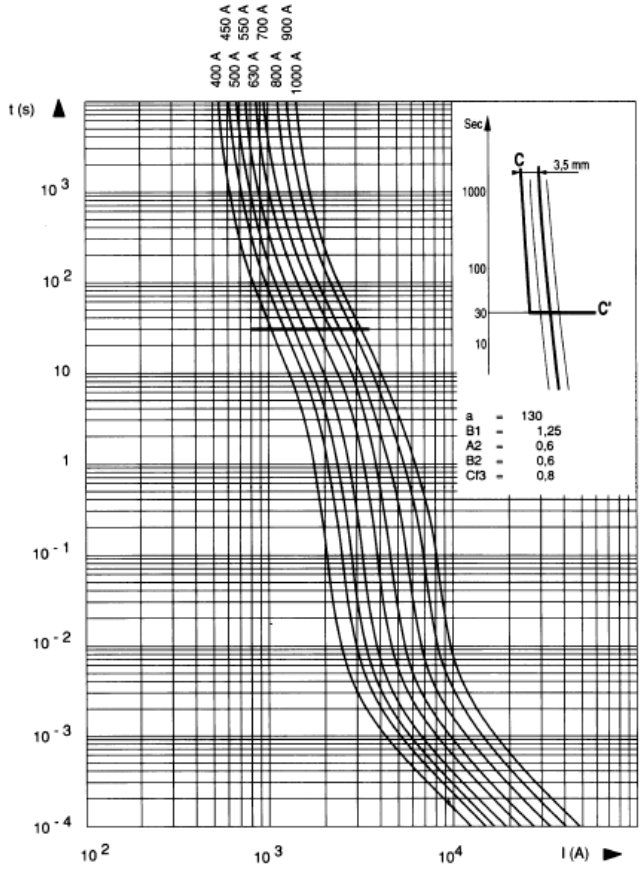
Size 0



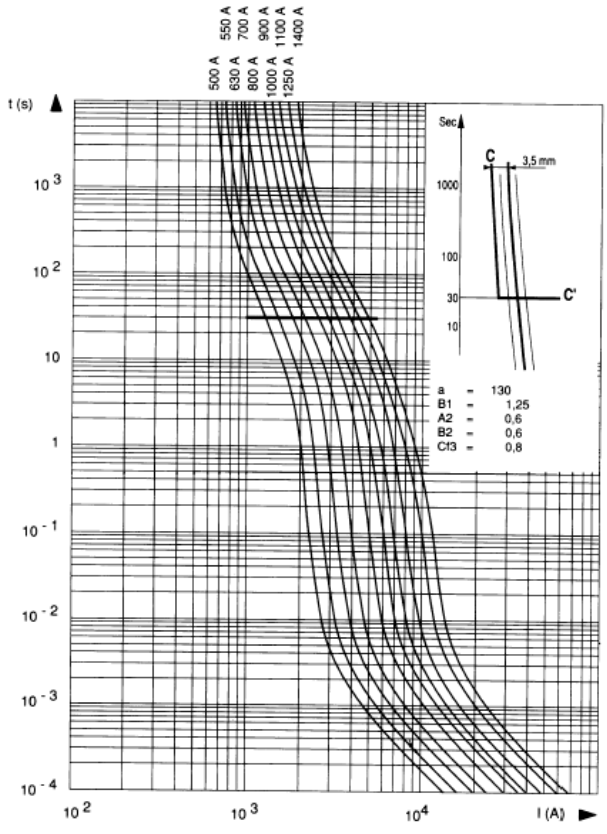
Size 1



Size 2

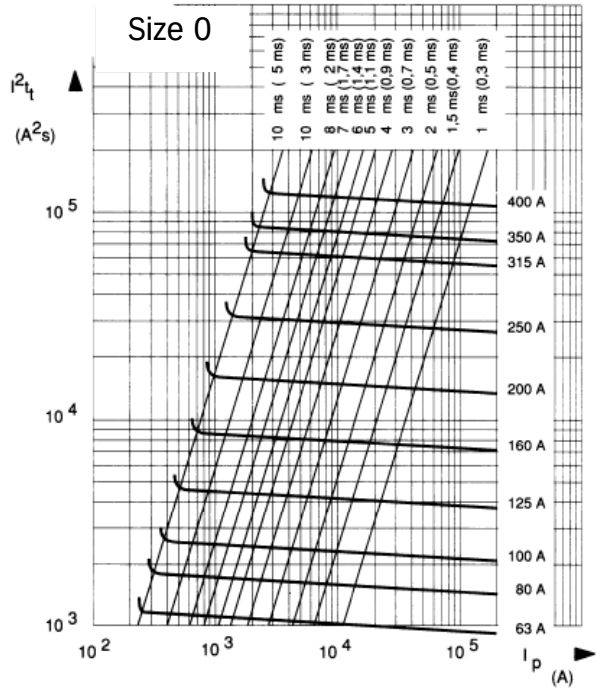


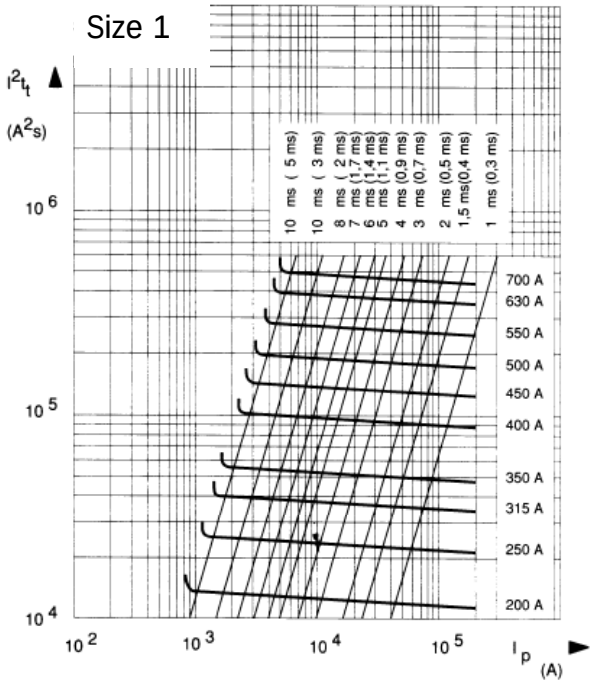
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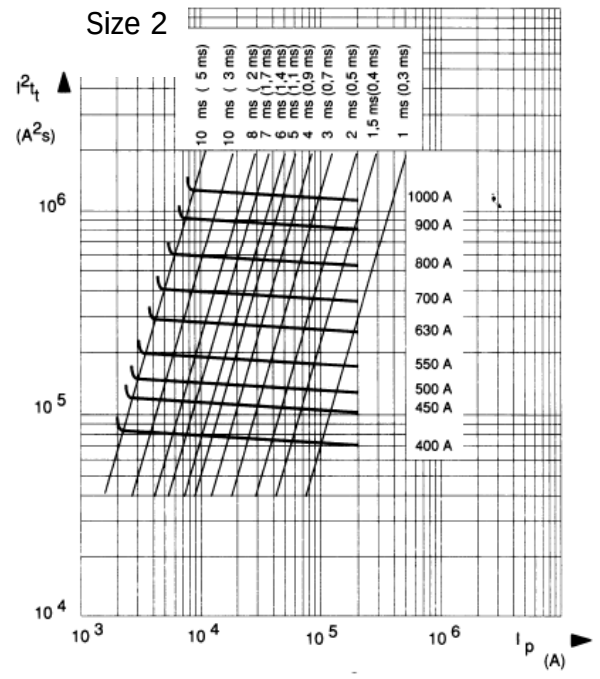


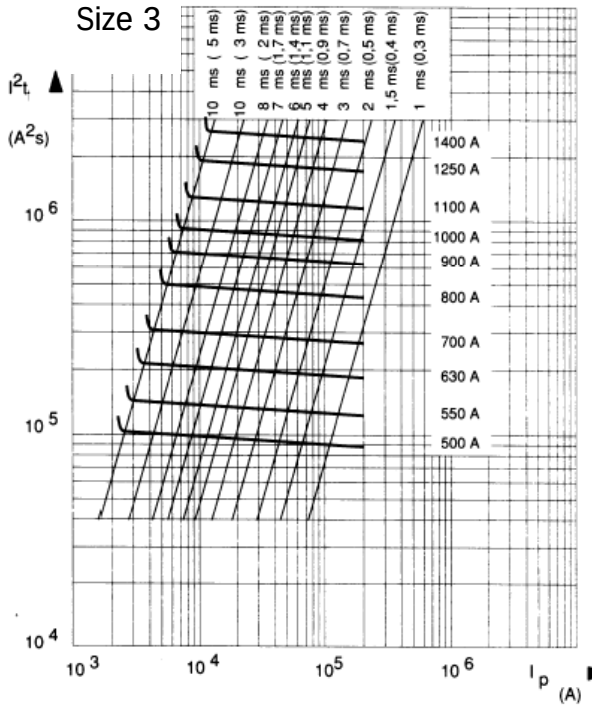
Total clearing I²T:

The horizontal curves given below indicated the maximum values of total operating I^2t (I^2t_t) as a function of prospective current Ip @ 660V, cosφ = 0.15. Oblique lines indicate the corresponding total operating time T_t, with pre-arcing time in brackets.





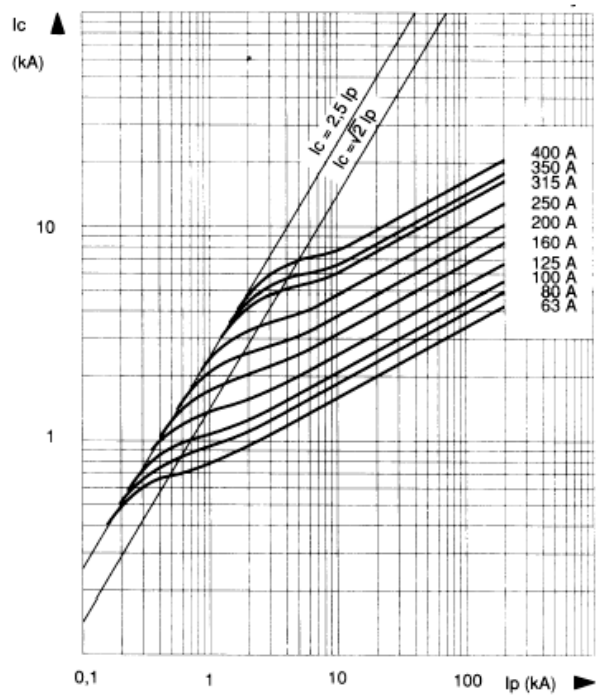




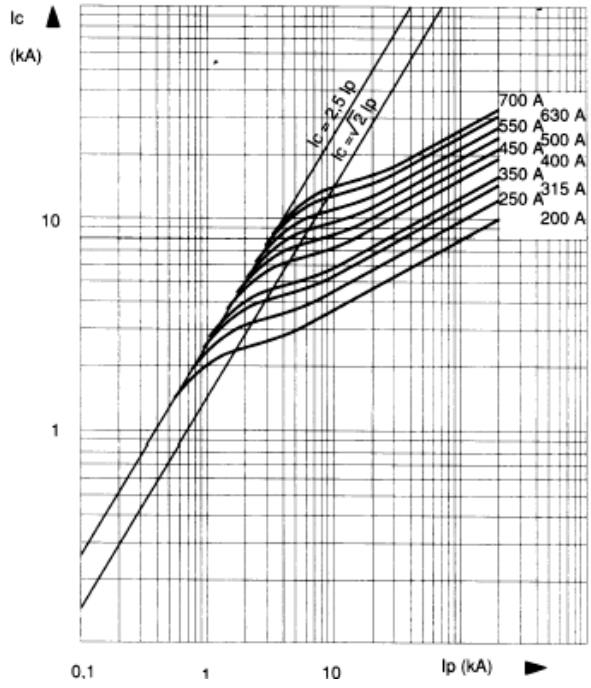
Cut off Characteristics:

The curves below indicate, for each rated current, the peak value I_C that the current may reach as a function of the prospective fault current Ip.

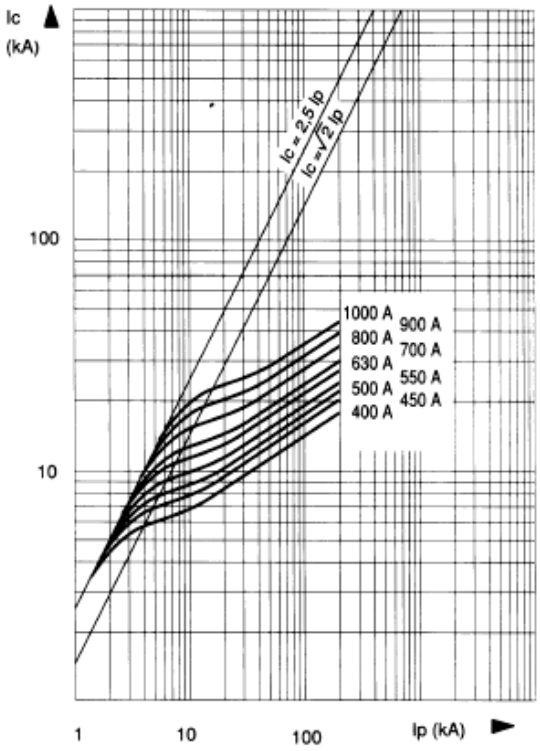
Size 0



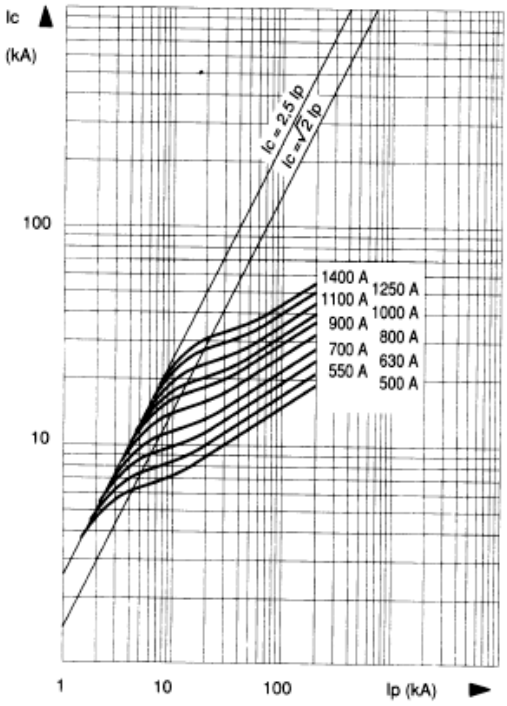
Size 1



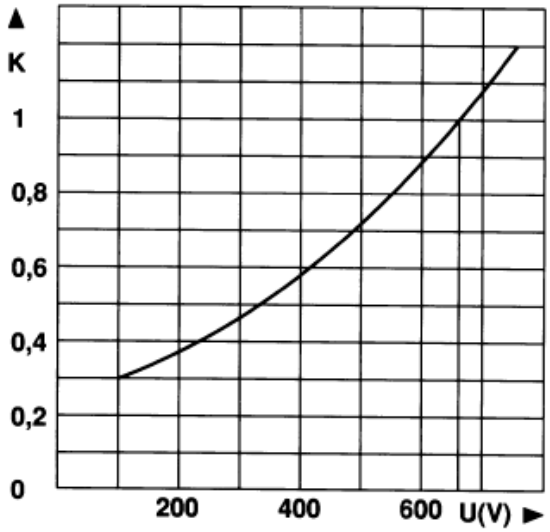
Size 2



Size 3

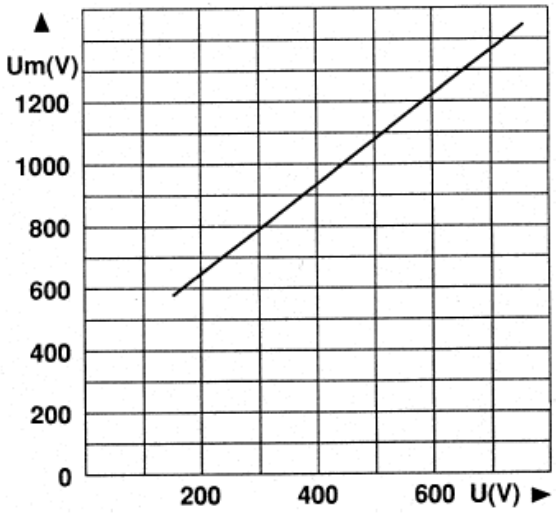


I^2t Multiplier Coefficient



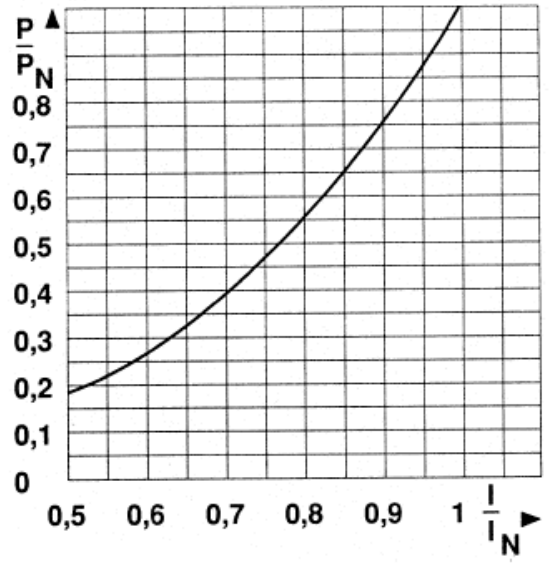
The above Mean curve shows variation of total clearing time (I^2t_t) and total operating time T_t in accordance with working voltage U.

Peak Arc Voltage



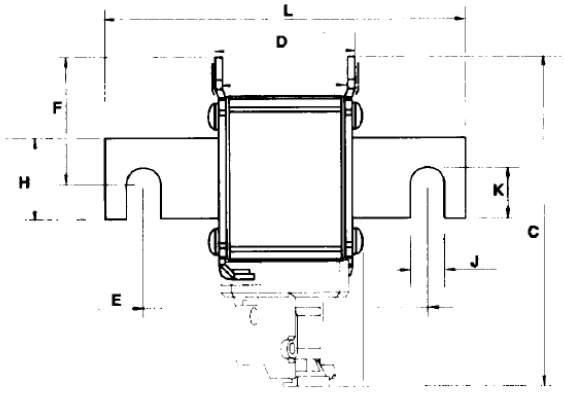
Curve indicating peak arc voltage Um which may appear across fuse terminals as a function of working voltage U @ cos φ = 0.15.

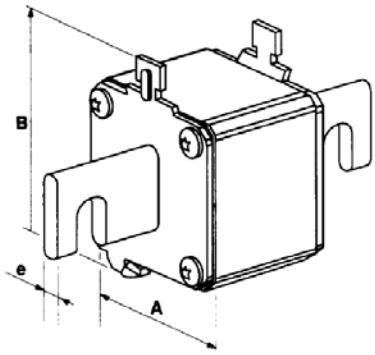
Dissipated Power



Curve enabling calculation of dissipated power P by a fuse rated I_N, as a function of the RMS current I, in multiples of I_N in a steady state.

Outline Drawing & Ordering Information:





Dimensions (mm)

Size	A	B	C	D	E	L	F	H	J	K	e	Weight
0	40	62	96	44.6	76.6	100	38	18	9	11	6	290g
1	51	69	103	44.6	86.6	110	39	25	10.5	16	6	430g
2	60	78	112	44.6	91	126	43	32	13	21.2	6	590g
3	74.5	92.5	127	44.6	91	126	57	40	13	19.5	6	860g

ORDERING INFORMATION (Please quote code as below)

Voltage Rating (V)	Type	Sizes	Fixing	Current Ratings	Indicator
690	UF	0, 1, 2, 3	A or B	0063 – 1400	B

Order code: e.g. **069UF3B0315B** = 690V, French Standard Blade, Size 3, 90mm, 315A with button indicator

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