

Other Protistor® Fuses Ferrule Fuses 10x38 gRB - 690VAC

690V AC
gRB - from 1 up to 30 A
Size: 10x38



The fuse preselection table below indicates: 

- rated current (or rating) I_N
- pre-arcing I^2t (I^2t_D) at 1 ms
- total operating I^2t (I^2t_t) at 690V, $\cos \varphi=0.15$, and for a total operating time from 8 to 10 ms
- dissipated power P_N at the rated current I_N , and at $0.8 I_N$ in steady state
- Nominal breaking capacity, checked by tests made in accordance with IEC standard.

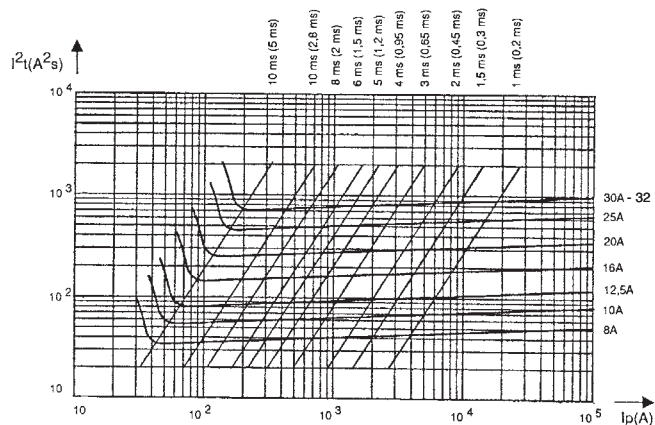
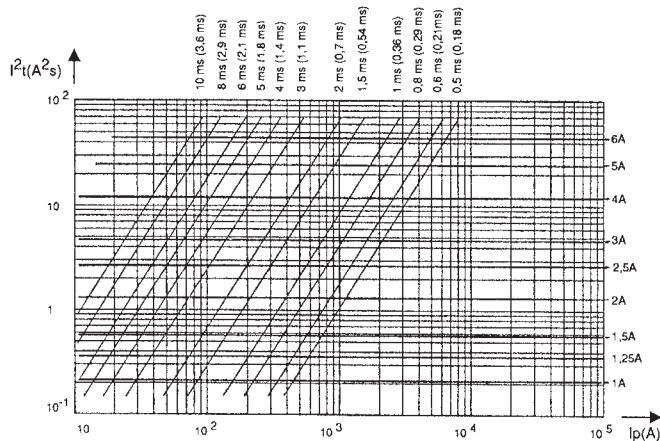
Voltage Rating (VAC)	Rated current I_N (A)	Pre-arcing I^2t I^2t_p (A ² s)	Total I^2t at 660VAC I^2t_t (A ² s)	Dissipated power		Peak arc voltage (V)	Breaking capacity I (kA)
				at I_N (W)	at $0.8 I_N$ (W)		
690	1	0,075	0,28	0,9	0,52	2500	160 kA 690 V (IEC)
	1,25	0,115	0,36	1,25	0,7		
	1,5	0,185	0,57	1,5	0,81		
	2	0,42	1,3	2	1,1		
	2,5	0,88	2,7	2,1	1,15		
	3	1,55	4,6	2,3	1,25		
	4	4	12	2,6	1,35		
	5	8,6	25	2,7	1,4		
	6	15	44	2,9	1,5		
	8	3,3	33	2,4	1,35	1450	
	10	5,4	55	3,4	1,85		
	12,5	8,5	82	3,4	1,9		
	16	16	145	4,1	2,3		
	20	230	250	4,3	2,4		
	25	58	470	4,7	2,7		
30 (32*)	96	740	5	2,9			

* Non approval rating

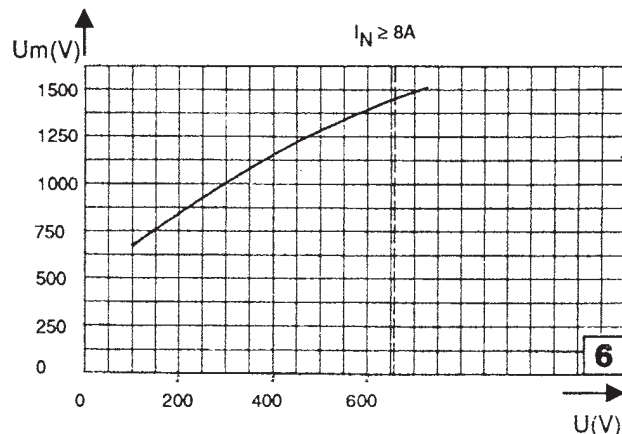
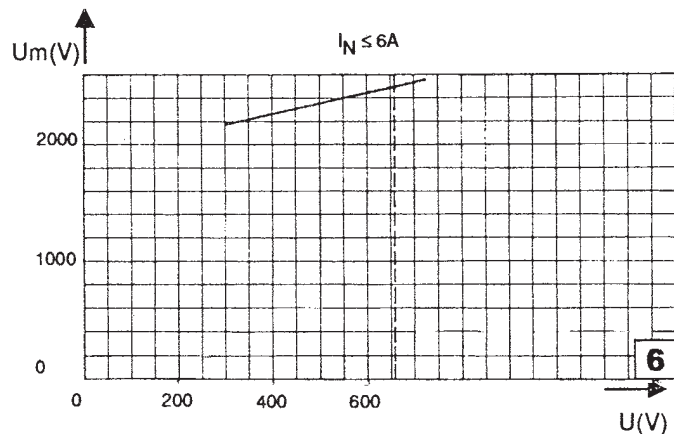
Semiconductor (AC) fuses

Other Protistor® Fuses French Ferrule 10x38 gRB - 690VAC

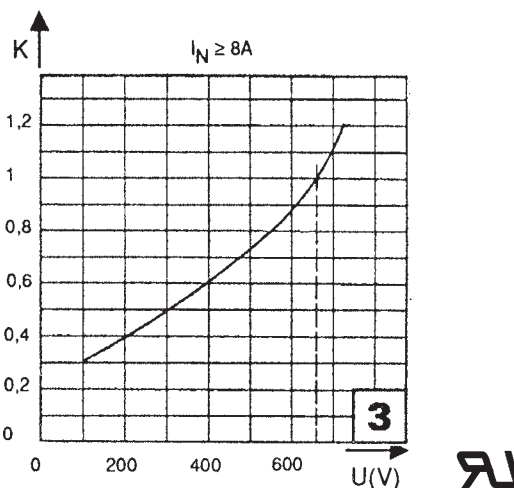
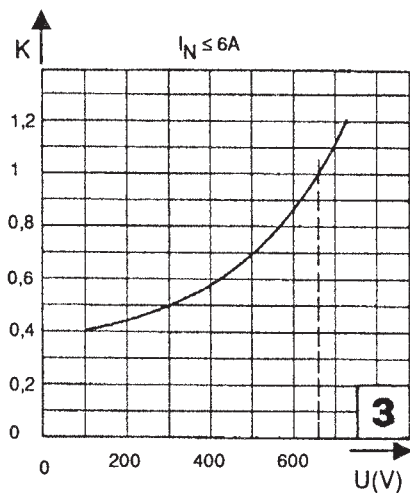
Maximum values of total operating I^2t and total operating times



Arc voltage

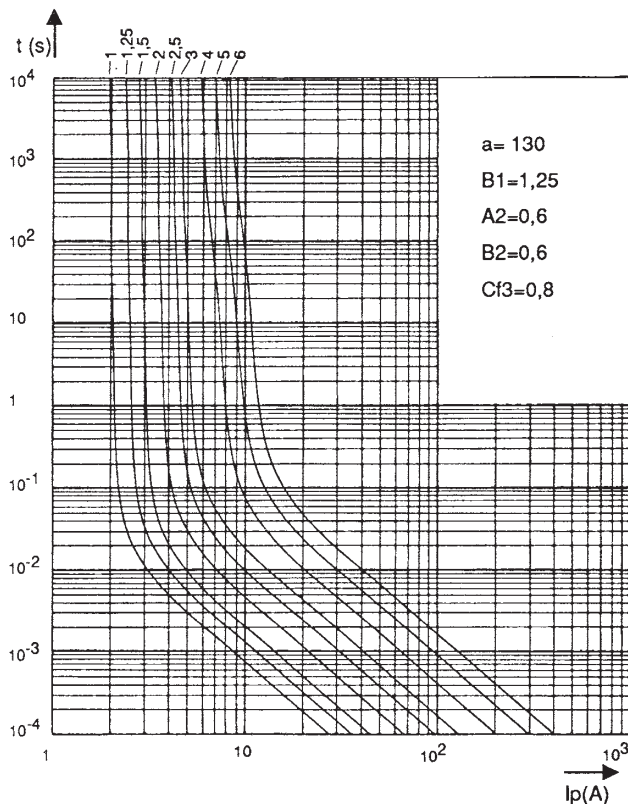


Multiplier coefficient

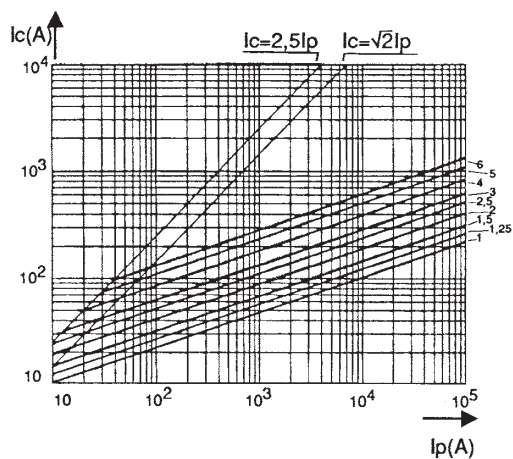


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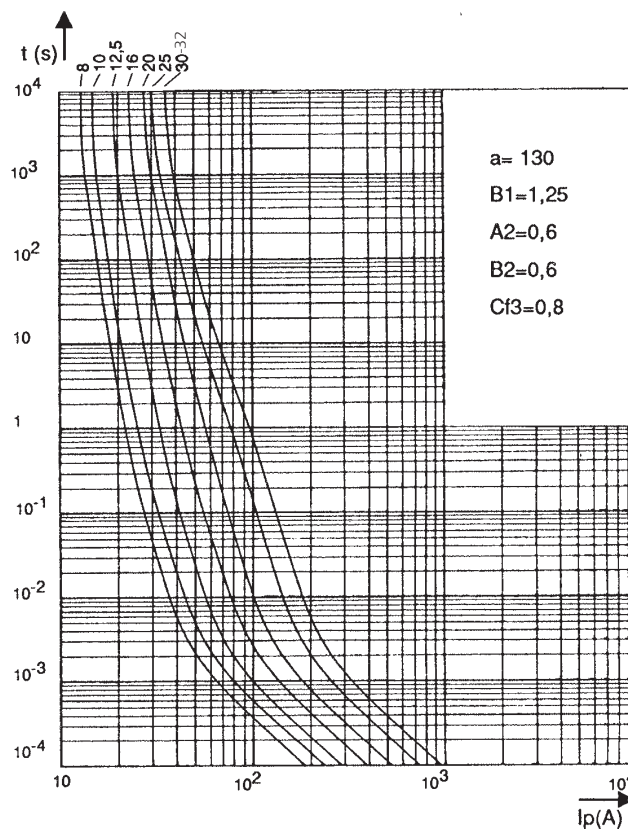
Time-current characteristics (1 to 6 A)



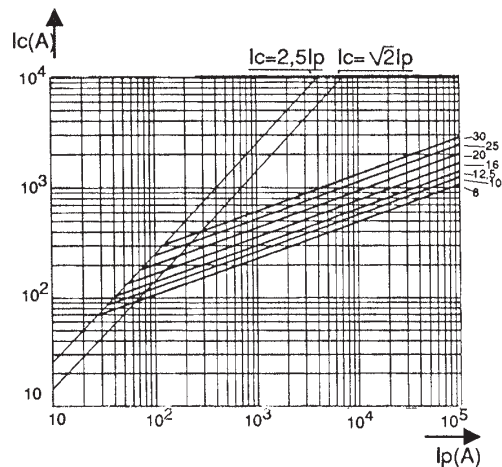
Cut-off characteristics



Time-current characteristics (8 to 30 A)



Cut-off characteristics



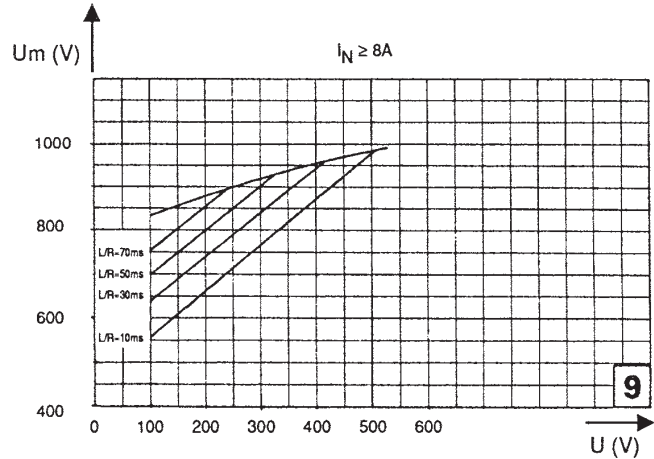
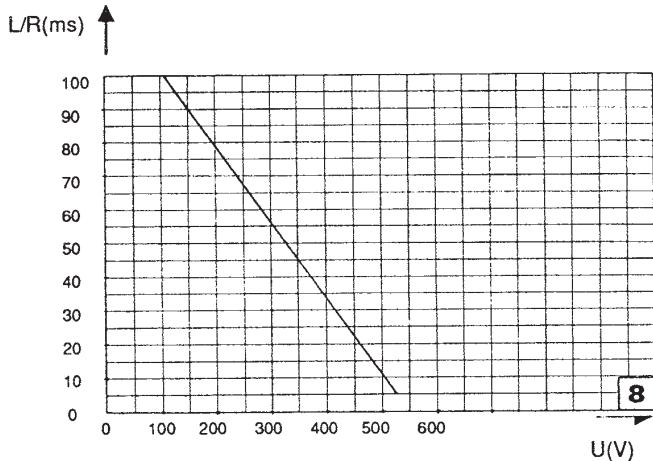
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Dimensions / Reference / Ref. No. 

Rating (A)	Designation	Ref. Number	Catalog Number
1	6,9 gRC 10-01 - A070 gRC 01 T13	Z330279	FR10GB69V1
1,25	6,9 gRB 10-1,25 - A070 gRB 1.25 T13	X330001	FR10GB69V1.25
1,5	6,9 gRB 10-1,5 - A070 gRB 1.5 T13	Y330002	FR10GB69V1.5
2	6,9 gRB 10-02 - A070 gRB 02 T13	Z330003	FR10GB69V2
2,5	6,9 gRB 10-2,5 - A070 gRB 2.5 T13	A330004	FR10GB69V2.5
3	6,9 gRB 10-03 - A070 gRB 03 T13	B330005	FR10GB69V3
4	6,9 gRB 10-04 - A070 gRB 04 T13	C330006	FR10GB69V4
5	6,9 gRB 10-05 - A070 gRB 05 T13	D330007	FR10GB69V5
6	6,9 gRB 10-06 - A070 gRB 06 T13	E330008	FR10GB69V6
8	6,9 gRB 10-08 - A070 gRB 08 T13	F330009	FR10GB69V8
10	6,9 gRB 10-10 - A070 gRB 10 T13	G330010	FR10GB69V10
12,5	6,9 gRB 10-12,5 - A070 gRB 12.5 T13	H330011	FR10GB69V12.5
16	6,9 gRB 10-16 - A070 gRB 16 T13	J330012	FR10GB69V16
20	6,9 gRB 10-20 - A070 gRB 20 T13	K330013	FR10GB69V20
25	6,9 gRB 10-25 - A070 gRB 25 T13	L330014	FR10GB69V25
30	6,9 gRB 10-30 - A070 gRB 30T13	M330015	FR10GB69V30
32*	6,9 gRB 10-32 - A070 gRB 32T13	Y330278	FR10GB69V32

* Non approval rating

DC working voltage possibilities



↑ Above: Curve indicating the maximum time constant L/R of the fault path as a function of the DC voltage U , for the rated currents from 1 to 30 A of this range.

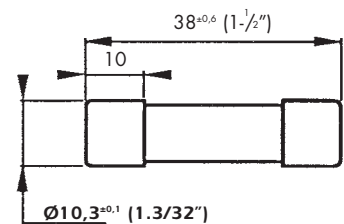
Time-current characteristics: Curves indicate, for each rated current, pre-arcing time as a function of RMS value of pre-arcing current I .

Tolerances on this current:
 $\pm 10\%$ = ratings from 1 to 6 A
 $\pm 9\%$ = ratings from 8 to 30 A

Fuses with "gR" characteristics can eliminate all overloads. They do not show any minimum breaking capacity but limit currents of non-operation or operation in compliance with standard VDE 636/23.

Cut off characteristics: Curves indicate, for each rated current, the peak value I_c that the current may reach as a function of prospective fault current I_p .

Without trip-indicator
 Max. weight 10g
 Packaging: per 10 pieces



Other Protistor® Fuses

Ferrule Fuses

10x38 URB/URD/URL - 500 to 600 VAC



Extremely high breaking capacity fuses:
Protection of power semiconductors complying with IEC standard 60269.1 and 4.

500 - 600 VAC voltage rating

aR-CLASS according to VDE 636-23 IEC 60269-4

Without blown fuse indication 0.10 up to 0.80 A**

With trip-indicator (1 to 30 A), a Ferraz Shawmut speciality*

Main Characteristics

Voltage rating U_N (VAC)	Class	Current rating I_N (A)	Pre-arcing $I^2t @ 1 \text{ ms}$ I^2tp (A ² s)	Total clearing $I^2t @ U_N$ I^2tt (A ² s)	Watts loss		Tested breaking capacity
					0.8 I_N	I_N	
600 V without blown fuse indicator	URD **	100 mA	/	1.2 10 ⁻³	0.23	0.4	200 kA @ 600 V
		125 mA		2.3 10 ⁻³	0.25	0.44	
		160 mA		5.2 10 ⁻³	0.28	0.48	
		200 mA		8 10 ⁻³	0.34	0.58	
		250 mA		18 10 ⁻³	0.35	0.60	
		315 mA		33 10 ⁻³	0.42	0.73	
		400 mA		56 10 ⁻³	0.46	0.80	
		500 mA		0.100	0.46	0.80	
		630 mA		0.18	0.52	0.90	
		800 mA		0.44	0.58	1	
500 V with trip-indicator	URD	1 A	0.40	3.6	2.8	0.5	50 kA @ 500 V
		1.25 A	0.13	1.7	0.52	0.91	
		1.6 A	0.31	2.2	0.58	1	
		2 A	0.65	3.1	0.63	1.1	
		2.5 A	1.65	5.9	0.63	1.1	
		3.15 A	2.80	9	0.86	1.5	
	4 A	5.30	16	1.1	1.8		
	5 A	12.7	36	1.1	1.8		
	URD	6 A	1.3	47	0.73	1.35	50 kA @ 500 V
		8 A	2.3	80	0.83	1.55	
		10 A	3.6	110	1	1.9	
		12 A	5.25	150	1.3	2.3	
		16 A	9.30	200	1.7	3.1	
		20 A	16	290	1.7	3.2	
	URL	25 A	37	580	2.9	4.25	50 kA @ 500 V
		30 A	58	900	3.5	5.1	

* minimum operating voltage for trip-indicator: 20 V

** higher ratings without blown fuse indicator see 10x38gRB - 690 VAC