FERRAZ

PROTISTOR ® FUSES

BRITISH STANDARD
500 - 660 V AC
gRB - URB from 20 to 400 A
Size : 000

- EXTREMELY HIGH INTERRUPTING RATING FUSES: PROTECTION OF POWER SEMI CONDUCTORS ACCORDING TO 269.1 AND 4 IEC STANDARD AND EN 60269-1.4
- 500- 660 V VOLTAGE RATING (RATING 20 TO 400 A)
- gR CLASS (gRB RATINGS 20 TO 125 A) ACCORDING TO VDE 636-23
  - CLEARING ALL OVERLOADS
  - IMPROVING SAFETY AND PROTECTION
  - ENABLING SELECTIVE COORDINATION WITH ALL THE FUSES

  aR CLASS (URB RATINGS 75 TO 400 A) ACCORDING TO VDE 636-23 AND IEC 269.4
- TWO MODELS ACCORDING TO BS 88-4 AND EN 60 269 .4 STANDARDS; Z3 DRAWING (74 mm BETWEEN AXES) WITHOUT BLOWN FUSE INDICATION - WITH SEPARATED TRIP INDICATOR

MAIN CHARACTERISTICS

Voltage rating U_N (V)	Class	Current rating I_N (A)	pre-arcing I^2t @ 1 ms I^2t_p (A^2s)	Total clearing I^2t @ UN I^2t_t (A^2s)	Watt losses 0.8 I_N	Watt losses I_N	Tested interrupting rating	Estimated interrupting rating
660 690+6%	gRB	20 25 32 40 50 63 80 100 125	12 20 39 70 102 210 475 970 1900	80 150 270 460 730 1500 2900 6000 11800	3.8 5.0 5.5 6.6 7.7 8.8 9.9 11 11.6	7 9 10 12 14 16 18 20 21	200 k A @ 660 V	300 k A @ 660 V
660 690+6%	URB	75 80 100 110 125 160 200 250 315	350 390 690 950 1300 2700 5250 9900 15500	2250 2500 4200 6800 8900 16000 31500 52000 82000	11.2 11.6 12.7 13.5 14.3 17.0 19.8 24.8 31.9	20.5 21 23 24.5 26 31 36 45 58	200 k A @ 660 V	300 k A @ 660 V
500	URB	350 400	22400 33200	110000 160000	31.9 36.3	58 66	120 k A @ 500 V	

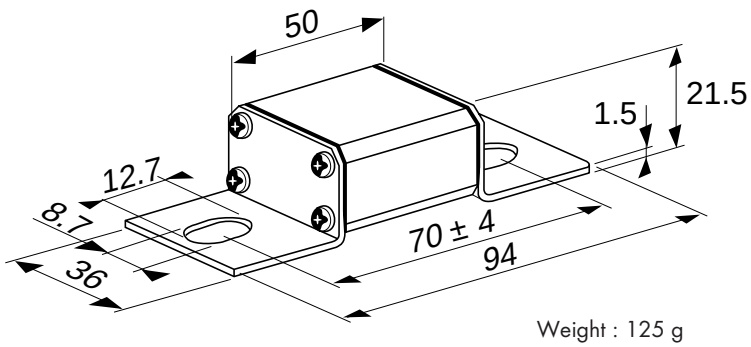
Minimum operating voltage for the separated trip-indicator: 20 V

Publication: F600397-10/96
CP3P1 / 3P1 31005 GB
RA 0238 A

GROUPE CARBONE LORRAINE

REFERENCES

BRITISH STANDARD WITHOUT BLOWN FUSE INDICATOR

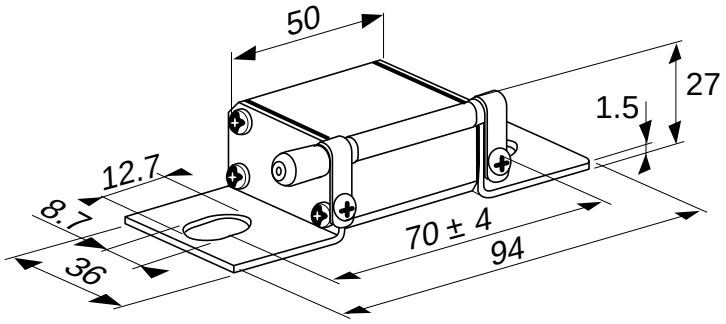


Weight : 125 g
Packaging : 10 pieces

Current rating	Code	Part #
20	6,6 gRB 000 BS88/020	T 330044
25	6,6 gRB 000 BS88/025	V 330045
32	6,6 gRB 000 BS88/032	W 330046
40	6,6 gRB 000 BS88/040	X 330047
50	6,6 gRB 000 BS88/050	Z 330049
63	6,6 gRB 000 BS88/063	A 330050
80	6,6 gRB 000 BS88/080	N 330108
100	6,6 gRB 000 BS88/100	H 330103
125	6,6 gRB 000 BS88/125	P 330109

75	6,6 URB 000 BS88/075	B 330051
80	6,6 URB 000 BS88/080	C 330052
100	6,6 URB 000 BS88/100	D 330053
110	6,6 URB 000 BS88/110	E 330100
125	6,6 URB 000 BS88/125	E 330054
150	6,6 URB 000 BS88/150	F 330101
160	6,6 URB 000 BS88/160	F 330055
200	6,6 URB 000 BS88/200	G 330056
250	6,6 URB 000 BS88/250	H 330057
315	6,6 URB 000 BS88/315	J 330058
350	5 URB 000 BS88/350	X 330116
400	5 URB 000 BS88/400	G 330194

BRITISH STANDARD WITH SEPARATED BLOWN FUSE TRIP-INDICATOR



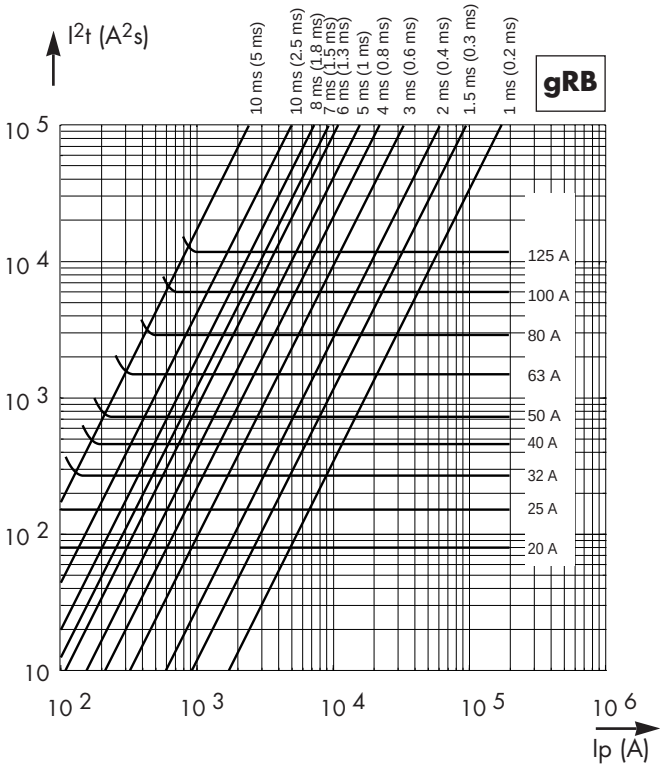
Weight : 135 g
Packaging : 10 pieces

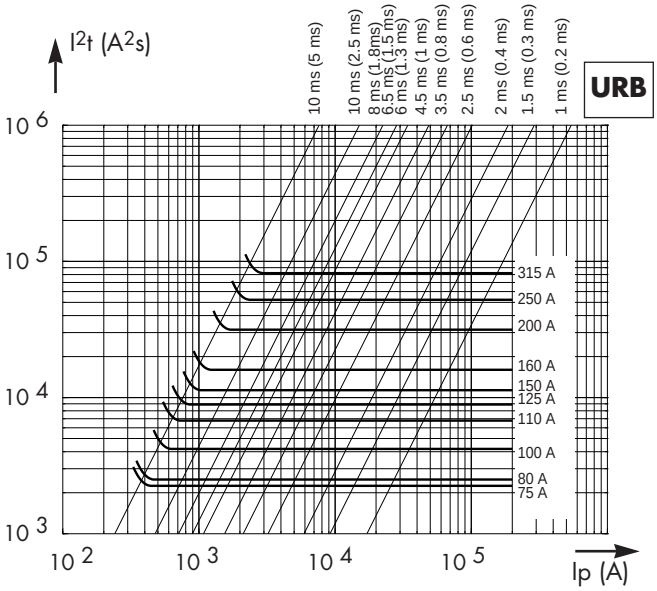
The use of a MC 6.3 GR 2-5N blown fuse remote sensing microswitch is possible.
Part # : Y 310015. mounted on the separated trip-indicator.
Consult data sheet 31xxx GB

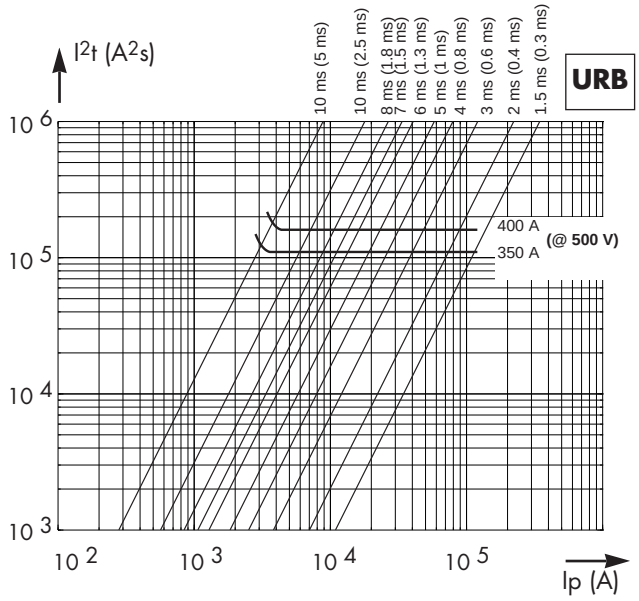
Current rating	Code	Part #
20	6,6 gRB 000 BS88P/020	Y 330117
25	6,6 gRB 000 BS88P/025	Z 330118
32	6,6 gRB 000 BS88P/032	A 330119
40	6,6 gRB 000 BS88P/040	B 330120
50	6,6 gRB 000 BS88P/050	C 330121
63	6,6 gRB 000 BS88P/063	D 330122
80	6,6 gRB 000 BS88P/080	E 330123
100	6,6 gRB 000 BS88P/100	F 330124
125	6,6 gRB 000 BS88P/125	G 330125

75	6,6 URB 000 BS88P/075	H 330126
80	6,6 URB 000 BS88P/080	J 330127
100	6,6 URB 000 BS88P/100	K 330128
110	6,6 URB 000 BS88P/110	L 330129
125	6,6 URB 000 BS88P/125	M 330130
150	6,6 URB 000 BS88P/150	N 330131
160	6,6 URB 000 BS88P/160	P 330132
200	6,6 URB 000 BS88P/200	Q 330133
250	6,6 URB 000 BS88P/250	R 330134
315	6,6 URB 000 BS88P/315	S 330135
350	5 URB 000 BS88P/350	T 330136
400	5 URB 000 BS88P/400	H 330195

Total clearing I^2t

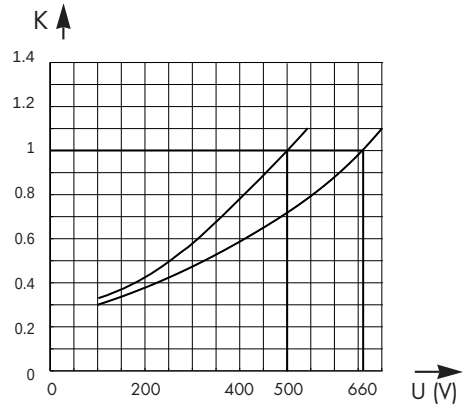






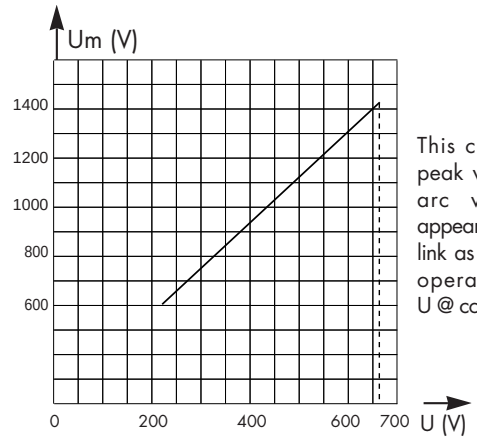
The flat curves show for each rated current the maximum values of total clearing I^2t (I^2t_f) as a function of a prospective current Ip. @ U_N.with cosφ = 0.15.
The crosswise lines indicate the total clearing duration Tt and the associated pre-arcing duration in brackets.

I^2t corrective factor



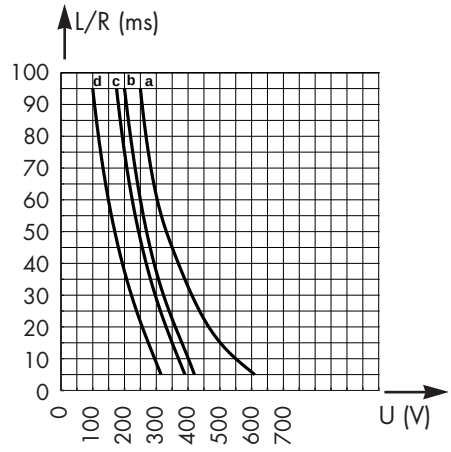
The mean curves show the variation of the total clearing time (I^2t_f) and the total clearing duration Tt as a function of operating voltage U.

Peak arc voltage

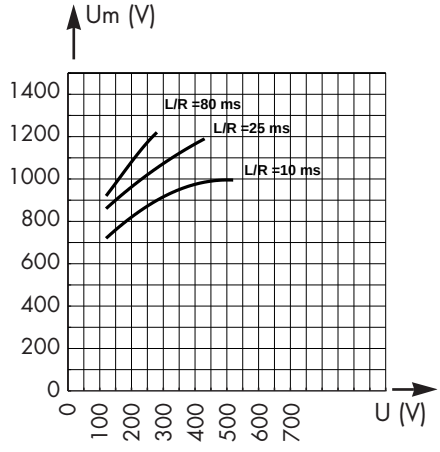


This curve shows the peak value Um of the arc voltage which appears across the fuse link as a function of the operating voltage U @ cos φ = 0.15

D.C. Applications data



These curves indicate the permissible value of time constant L/R as a function of the D.C. working voltage.
Curve a: for ratings from 20 to 160 A
Curve b : for ratings from 180 to 200 A
Curve c : for ratings from 250 to 315 A
Curve d : for ratings from 350 to 400 A

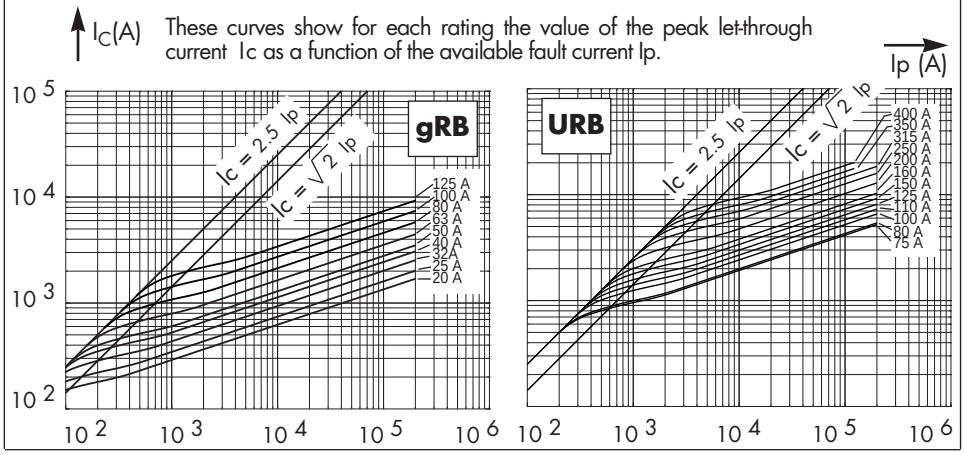


This curve indicates the peak arc voltage Um which may appear across the fuse terminals at working voltage U.

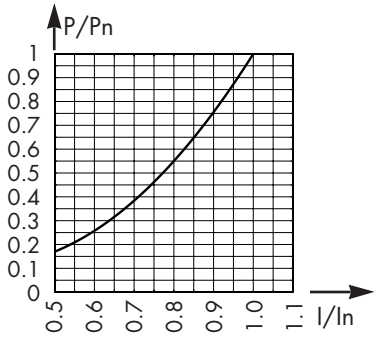
Rated current	Curve	Ipm (A)
20	a	60
25	a	65
32	a	90
40	a	120
50	a	150
63	a	200
80	a	270
100	a	370
125	a	500
160	a	700
200	b	1200
250	c	1800
315	c	2200
350	d	2600
400	d	3100

The Ipm values give the minimum DC interrupting current in amps.

Current limitation curves

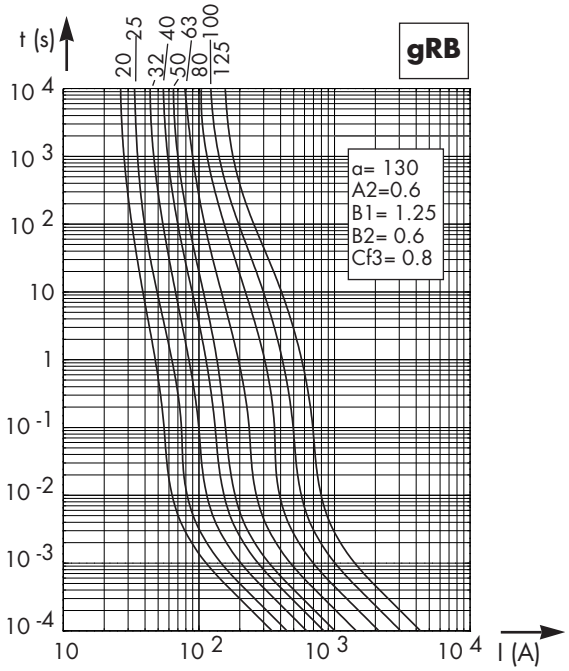


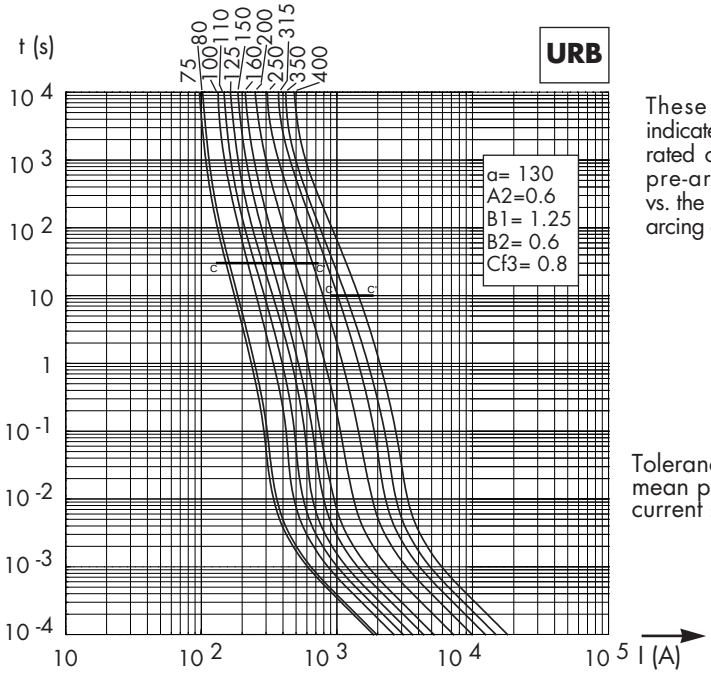
Watt losses



This curve enables the computation of the power losses P for a I_N-rated fuse as a function of the rms current I (as a multiple of I_N for a steady stade operation)

Time vs current characteristics





These curves indicate, for each rated current, the pre-arcing time vs. the R.M.S. pre-arcing current

Tolerance for the mean pre-arcing current ± 8%.

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Publication: F600397-10/96
CP3P1 / 3P1 31005 GB
RA 0238 A

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