



PROTISTOR FUSES

690V

gRB-URB FROM 16 TO 450A

SIZE: 00

Features/Benefits

- **Extremely high Interrupting rating Fuses:**
Protection of power Semiconductors according to IEC 269.1 and 4
- **690V Voltage Rating**
- **gR Class** [gRB Ratings 16 to 160 A] According to VDE 636-23
 - Full range protection
 - Improving safety and protection
 - Allows selective coordination
- **aR Class** [URC and URD Ratings 16 to 450A] According to VDE 636-23 and IEC 269.4
- **Connections According to:**
 - DIN 43653/00C 80 and 110mm Between Axes
 - DIN 43620/00C Solid Blades
- **Optional pin indicator for operating a microswitch**

APPLICATIONS DATA



VOLTAGE RATING U_N (V)	CLASS	CURRENT RATING I_N (A)	MELTING $i^2t @ 1\text{ms}$ i^2t_p (A ² s)	TOTAL CLEARING $i^2t @ U_N$ i^2t_t (A ² s)	WATT LOSSES		TESTED INTERRUPTING RATING	ESTIMATED INTERRUPTING RATING
					0.8 I_N	I_N		
690	gRB	16	8	61	2.7	5	200 kA @ 690 V	300 kA @ 690 V
		20	12	86	3.3	6		
		25	18	140	4.4	8		
		32	39	250	6.0	11		
		40	68	450	7.1	13		
		50	116	750	8.8	16		
		63	210	1400	9.9	18		
		80	525	3000	10.5	19		
		100	970	5400	10.7	19.5		
		125	1710	9600	13.2	24		
	160	4270	22400	13.7	25			
	URB	16	7	52	3.8	7	200 kA @ 690 V	300 kA @ 690 V
		20	10	75	5.0	9		
		25	15	120	6.0	11		
		32	32	210	8.2	15		
		40	61	400	9.9	18		
		50	102	700	11.5	21		
		63	177	1200	12.6	23		
		80	390	2200	13.8	25		
		100	692	3900	15.4	28		
125		1170	6600	18.1	33			
160	2680	14 000	19.8	36				
200	4690	24 000	23.1	42				
250	8300	42 500	27.5	50				
315	17 520	81 000	31.9	58				
350•	25 450	118 000	33.0	60				
400•	33 200	150 000	38.5	70				
600	URB	450**	51 850	225 000	40.7	74	200 kA @ 690 V	300 kA @ 600 V

Note: voltage rating of 350-400-450 A rated fuses is defined with a CC' curve at 1 second limited by the minimum breaking current.

• Voltage rating: 690V with CC' at 1s - 450V with CC' at 10 s

**Voltage rating: 600V with CC' at 1s - 450V with CC' at 10 s

DIN FUSES

SIZE 00

SEMICONDUCTOR PROTECTION FUSES

GERMAN STANDARD ACCORDING TO DIN 43653/00C - DIN 80 & 110

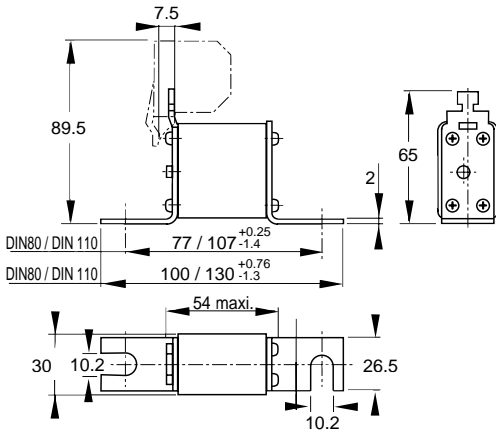
**gRB
DIN 80**

CURRENT RATING	CATALOG NO.	REF #	I/IN FUSE-BASE
16	6,9gRB00D08L016	S330273	1
20	6,9gRB00D08L020	S330227	1
25	6,9gRB00D08L025	T330228	1
32	6,9gRB00D08L032	V330229	1
40	6,9gRB00D08L040	W330230	1
50	6,9gRB00D08L050	X330231	1
63	6,9gRB00D08L063	Y330232	1
80	6,9gRB00D08L080	Z330233	1
100	6,9gRB00D08L100	A330234	1
125	6,9gRB00D08L125	B330235	0.9
160	6,9gRB00D08L160	C330236	0.9

**URB
DIN 80**

CURRENT RATING	CATALOG NO.	REF #	I/IN FUSE-BASE
16	6,9URB00D08L016	V330275	1
20	6,9URB00D08L020	T330274	1
25	6,9URB00D08L025	M330268	1
32	6,9URB00D08L032	N330269	1
40	6,9URB00D08L040	P330270	1
50	6,9URB00D08L050	Q330271	1
63	6,9URB00D08L063	R330272	1
80	6,9URB00D08L080	D330237	1
100	6,9URB00D08L100	E330238	1
125	6,9URB00D08L125	F330239	0.9
160	6,9URB00D08L160	G330240	0.85
200	6,9URB00D08L200	H330241	0.85
250	6,9URB00D08L250	J330242	0.80
315	6,9URB00D08L315	K330243	0.75
350	6,9URB00D08L350	L330244	0.75
400	6,9URB00D08L400	M330245	0.70
450	6,9URB00D08L450	N330246	0.65

GERMAN STANDARD ACCORDING TO DIN 43653/00C DIN 80 & 110



**gRB
DIN 110**

**URB
DIN 110**

CURRENT RATING	CATALOG NO.	REF #	I/IN FUSE-BASE
16	6,9gRB00D11L 016	W330276	1
20	6,9gRB00D11L 020	P330247	1
25	6,9gRB00D11L 025	Q330248	1
32	6,9gRB00D11L 032	R330249	1
40	6,9gRB00D11L 040	S330250	1
50	6,9gRB00D11L 050	T330251	1
63	6,9gRB00D11L 063	V330252	1
80	6,9gRB00D11L 080	W330253	1
100	6,9gRB00D11L 100	X330254	1
125	6,9gRB00D11L 125	Y330255	0.9
160	6,9gRB00D11L 160	Z330256	0.9

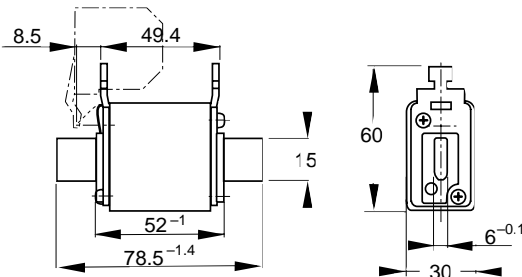
CURRENT RATING	CATALOG NO.	REF #	I/IN FUSE-BASE
80	6,9URB00D11L80	A330257	1
100	6,9URB00D11L100	B330258	1
125	6,9URB00D11L125	C330259	0.9
160	6,9URB00D11L160	D330260	0.85
200	6,9URB00D11L200	E330261	0.85
250	6,9URB00D11L250	F330262	0.80
315	6,9URB00D11L315	G330263	0.75
350	6,9URB00D11L350	H330264	0.75
400	6,9URB00D11L400	J330265	0.70
450	6,9URB00D11L450	K330266	0.65

Weight : 140 g(D08) - 190 g(D11)
Packaging : 3 pieces

Microswitches:
6.3 clips | MC 4L 2.5 B6 - Part #: L076646
or MC 4L 2.5 B6 + PRES - Part #: F210156
2.8 clips | MC 4L 2.5 B2 - Part #: G076642
or MC 4L 2.5 B2 + PRES - Part #: G210157

Fuse-base: SI 00 DIN 80 (80 and 110) - Part #: Q098040

GERMAN STANDARD ACCORDING TO DIN 43620/00



**gRB
DIN 43620**

**URB
DIN 43620**

Weight : 210 g
Packaging : 3 pieces

Microswitches:
6.3 clips | or MC 4L 2.5 B6 + PRES - Part #: F210156
2.8 clips | or MC 4L 2.5 B2 + PRES - Part #: G210157

Fuse-base: 41002-G

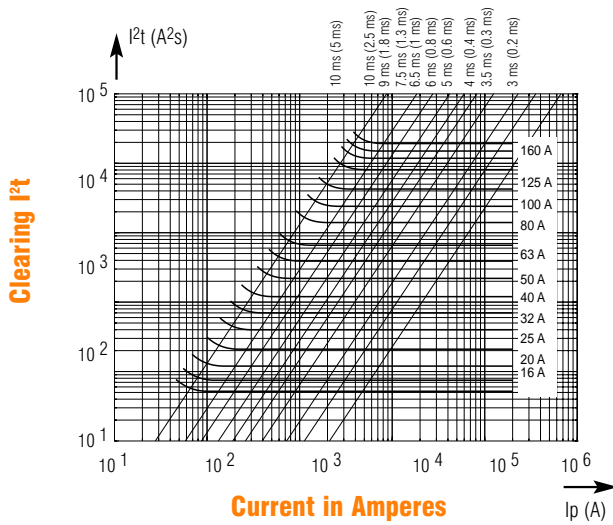
CURRENT RATING	CATALOG NO.	REF #	I/IN FUSE-BASE
16	6,9gRB00PV/016	L330267	1
20	6,9gRB00PV/020	W330207	1
25	6,9gRB00PV/025	X330208	1
32	6,9gRB00PV/032	Y330209	1
40	6,9gRB00PV/040	Z330210	1
50	6,9gRB00PV/050	A330211	1
63	6,9gRB00PV/063	B330212	0.90
80	6,9gRB00PV/080	C330213	0.90
100	6,9gRB00PV/100	D330214	0.90
125	6,9gRB00PV/125	E330215	0.85
160	6,9gRB00PV/160	F330216	0.85

CURRENT RATING	CATALOG NO.	REF #	I/IN FUSE-BASE
80	6,9URD00PV0080	Z320159	0.90
100	6,9URD00PV0100	D320163	0.90
125	6,9URD00PV0125	F320165	0.85
160	6,9URD00PV0160	K320169	0.85
200	6,9URD00PV0200	M320171	0.85
250	6,9URD00PV0250	R320175	0.80
315	6,9URD00PV0315	W320179	0.75
350	6,9URD00PV/350	P330224	0.75
400	6,9URD00PV/400	Q330225	0.70
450	6,9URD00PV/450	R330226	0.65

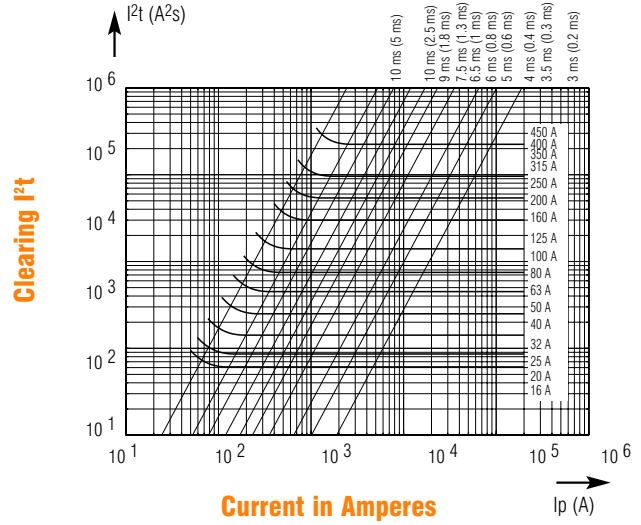
I/IN : Ratio RMS steady current / current rating for fuses in base.

ELECTRICAL CHARACTERISTICS

Total Clearing I^2t - gRB

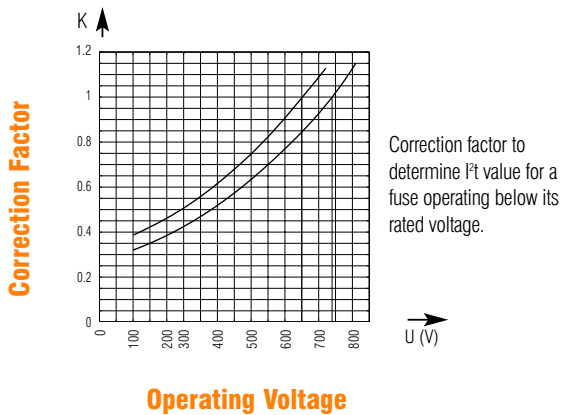


Total Clearing I^2t - URB

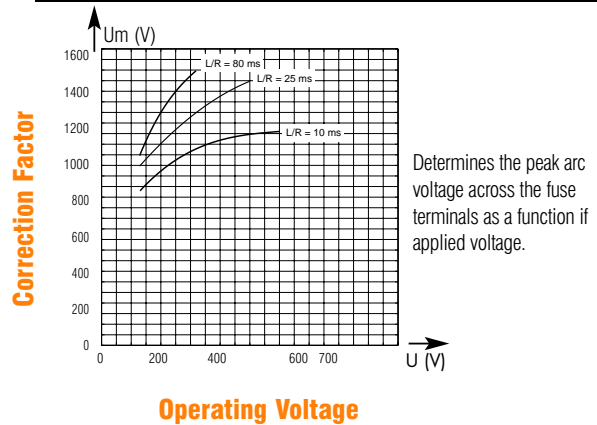


The flat curves show for each rated current the maximum values of total clearing I^2t (I^2t_t) as a function of a prospective current I_p . @ U_N with $\cos \phi = 0.15$. The crosswise lines indicate the total clearing duration T_t and the associated pre-arcing duration in brackets.

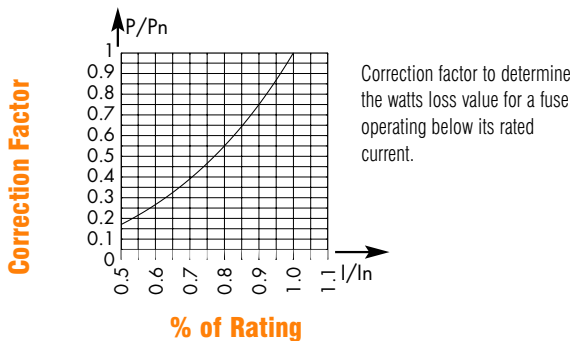
I^2t Correction Factor



Peak Arc Voltage



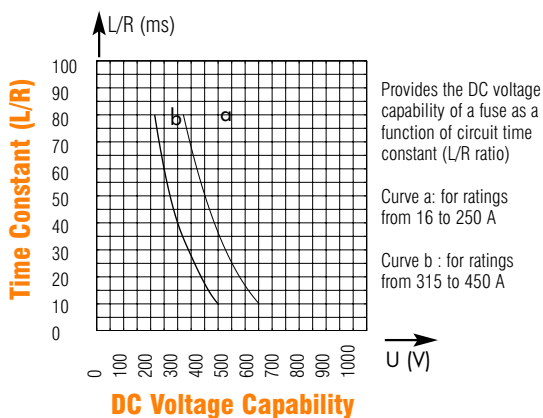
Watt Loss Correction



DIN FUSES SIZE 00

SEMICONDUCTOR FUSES

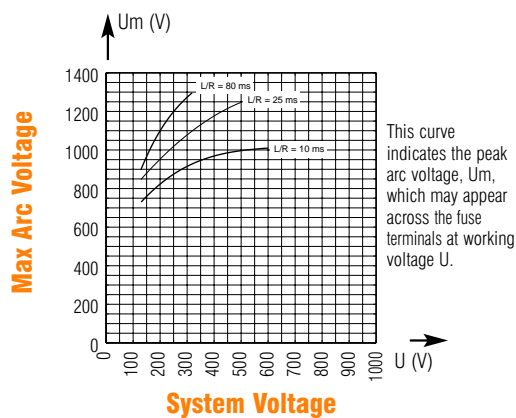
D.C. Voltage capability vs. Time Constant



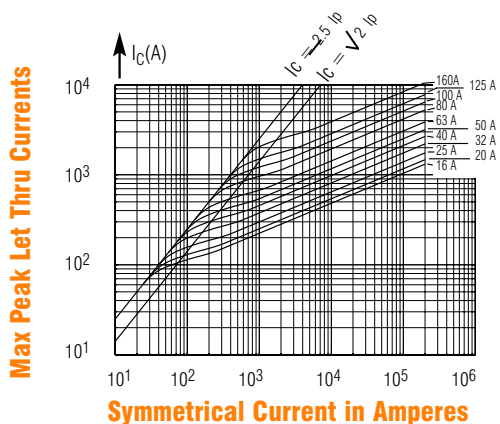
Rated Current	Curve	Ipm (A)	
		gRB	URB
16	a	32	32
20	a	40	40
25	a	50	50
32	a	64	64
40	a	80	80
50	a	100	100
63	a	126	126
80	a	160	170
100	a	200	220
125	a	250	280
160	a	320	390
200	a	400	510
250	a	650	
315	b	840	
350	b	1770	
400	b	2040	
450	b	2250	

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

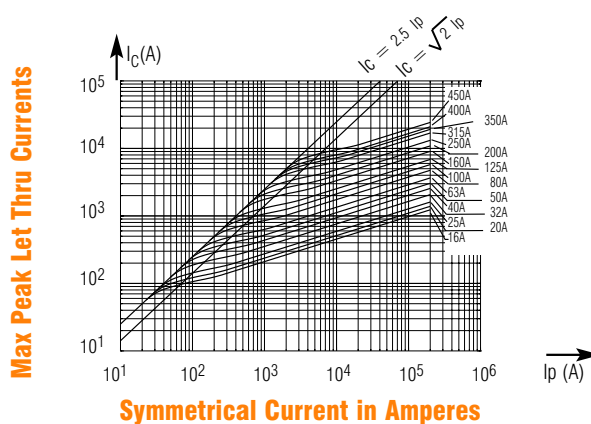
DC Peak Arc Voltage



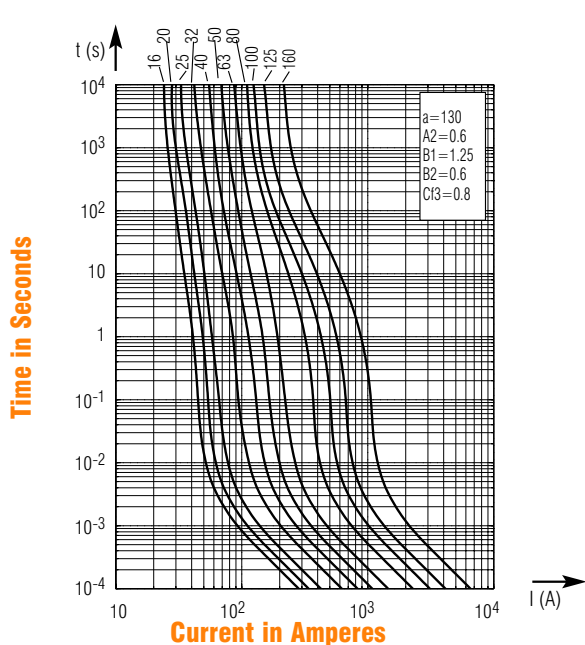
Peak Let-Through Data - gRB



Peak Let-Through Data - URB



Melting Time - Current Data - gRB



Melting Time - Current Data - URB

