Semiconductor & Special Protection

Protistor® Square body fuse-links

Sizes 000 and 00 gR 690VAC from 16 to 160A

Data Sheet

The 690/700V Protistor® fuse-links provide maximum flexibility in equipment design and ultimate protection for small power conversion equipment.
The Protistor® gR have been engineered to provide full range protection to eliminate all overloads and semiconductor fault. Fuses are assembled with pure silver, die-cut elements embedded in solidified sand, which helps control arcing characteristics for a lower I^2t and high interrupting rating level. All contact surfaces are silver plated and all hardware is non-magnetic.
Each fuse-link can be equipped with a low voltage trip-indicator which can operate a field mountable microswitch.

Benefits

Extremely fast acting
Eliminate all overloads
Current limiting
Low I^2t for improved semiconductor protection
Excellent cycling capability
gR Class according to VDE 636-23 and IEC 60269-4

Applications

Protection of inverters, UPS systems, motor drives and similar 690V or less equipment.

Ratings

690VAC IEC 60269-4
700VAC UL Recognized
500VDC UL Recognition for Size 000
600VDC UL Recognition for Size 00

Approvals

UL/CSA Recognized Component
AC: UL Guide No. E76491
IEC 60269-4 Compliance
RoHS Compliant

Related products

Monitoring: MS4L Microswitches
Fuse-holders: SI bases

Catalog Numbering System

	PC	00	GB	69V	80	PV
Technology						
DN ⇒ Protistor® Square Body as per DIN 43653/00C						
BS ⇒ Protistor® Square Body as per BS 88-4						
PC ⇒ Protistor® Square Body as per per DIN 43620/00						
Size						
000, 00						
Class						
GB for GRB: gR Class fuse as per IEC 60269-4						
Rated voltage						
69V = 690V						
Nominal current						
25 = 25A 250 = 250A 25C or 2500 = 2500A						
Mounting type						
L ⇒ DIN80						
D1L ⇒ DIN110						
PV ⇒ NH Style plain blades						
For other mounting style please consult us						

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Size 000

Size	Rated Voltage (V)	Nominal Current (A)	Class	Catalog Number DIN80 w/o indicator	Reference Number DIN80 w/o indicator	Catalog Number DIN80 with indicator	Reference Number DIN80 with indicator	Catalog Number DIN80 for monitoring micro-contact	Reference Number DIN80 for monitoring micro-contact
000	690	16	gR	DN000GB69V16	L330060	DN000GB69V16V	C330190	DN000GB69V16L	X330277
000	690	20	gR	DN000GB69V20	D330030	DN000GB69V20V	P330017	DN000GB69V20L	J330173
000	690	25	gR	DN000GB69V25	E330031	DN000GB69V25V	Q330018	DN000GB69V25L	K330174
000	690	32	gR	DN000GB69V32	F330032	DN000GB69V32V	R330019	DN000GB69V32L	L330175
000	690	40	gR	DN000GB69V40	G330033	DN000GB69V40V	S330020	DN000GB69V40L	M330176
000	690	50	gR	DN000GB69V50	H330034	DN000GB69V50V	T330021	DN000GB69V50L	N330177
000	690	63	gR	DN000GB69V63	J330035	DN000GB69V63V	V330022	DN000GB69V63L	P330178
000	690	80	gR	DN000GB69V80	A330073	DN000GB69V80V	G330102	DN000GB69V80L	Q330179
000	690	100	gR	DN000GB69V100	S330112	DN000GB69V100V	Q330110	DN000GB69V100L	R330180
000	690	125	gR	DN000GB69V125	T330113	DN000GB69V125V	R330111	DN000GB69V125L	S330181

Size	Rated Voltage (V)	Nominal Current (A)	Class	Catalog Number DIN Plain blades	Reference Number DIN Plain blades	Catalog Number BS w/o indicator	Reference Number BS w/o indicator	Catalog Number BS with indicator	Reference Number BS with indicator
000	690	16	gR	PC000GB69V16PV	Y210609	-	-	-	-
000	690	20	gR	PC000GB69V20PV	Z210610	BS000GB69V20	T330044	BS000GB69V20P	Y330117
000	690	25	gR	PC000GB69V25PV	A210611	BS000GB69V25	V330045	BS000GB69V25P	Z330118
000	690	32	gR	PC000GB69V32PV	B210612	BS000GB69V32	W330046	BS000GB69V32P	A330119
000	690	40	gR	PC000GB69V40PV	C210613	BS000GB69V40	X330047	BS000GB69V40P	B330120
000	690	50	gR	PC000GB69V50PV	D210614	BS000GB69V50	Z330049	BS000GB69V50P	C330121
000	690	63	gR	PC000GB69V63PV	E210615	BS000GB69V63	A330050	BS000GB69V63P	D330122
000	690	80	gR	PC000GB69V80PV	F210616	BS000GB69V80	N330108	BS000GB69V80P	E330123
000	690	100	gR	PC000GB69V100PV	G210617	BS000GB69V100	H330103	BS000GB69V100P	F330124
000	690	125	gR	PC000GB69V125PV	H210618	BS000GB69V125	P330109	BS000GB69V125P	G330125

Size	Rated Voltage (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I^2t (A^2s)	Clearing I^2t @ Rated Voltage (A^2s)	Watts Loss @ 100% In (W)	Watts Loss @ 80% In (W)
000	690	16	200	8.2	60*	5.6	-
000	690	20	200	12	80*	7	3.8
000	690	25	200	20	150*	9	5.0
000	690	32	200	39	270*	10	5.5
000	690	40	200	70	460*	12	6.6
000	690	50	200	102	730*	14	7.7
000	690	63	200	210	1500*	16	8.8
000	690	80	200	475	2900*	18	9.9
000	690	100	200	970	6000*	20	11
000	690	125	200	1900	11800*	21	11.6

**Total clearing I^2t @ 660V*

Product weight: 130g max. for DIN80, 150g max. for DIN Plain Blades, 125g max. for BS without indicator and 135g max. for BS with indicator

Packaging: 6 pieces for DIN80, 3 pieces for DIN Plain Blades and BS

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Size 00

Size	Rated Voltage (V)	Nominal Current (A)	Class	Catalog Number DIN80	Reference Number DIN80	Catalog Number DIN110	Reference Number DIN110	Catalog Number DIN Plain blades	Reference Number DIN Plain blades
00	690	16	gR	DN00GB69V16L	S330273	DN00GB69V16D1L	W330276	PC00GB69V16PV	L330267
00	690	20	gR	DN00GB69V20L	S330227	DN00GB69V20D1L	P330247	PC00GB69V20PV	W330207
00	690	25	gR	DN00GB69V25L	T330228	DN00GB69V25D1L	Q330248	PC00GB69V25PV	X330208
00	690	32	gR	DN00GB69V32L	V330229	DN00GB69V32D1L	R330249	PC00GB69V32PV	Y330209
00	690	40	gR	DN00GB69V40L	W330230	DN00GB69V40D1L	S330250	PC00GB69V40PV	Z330210
00	690	50	gR	DN00GB69V50L	X330231	DN00GB69V50D1L	T330251	PC00GB69V50PV	A330211
00	690	63	gR	DN00GB69V63L	Y330232	DN00GB69V63D1L	V330252	PC00GB69V63PV	B330212
00	690	80	gR	DN00GB69V80L	Z330233	DN00GB69V80D1L	W330253	PC00GB69V80PV	C330213
00	690	100	gR	DN00GB69V100L	A330234	DN00GB69V100D1L	X330254	PC00GB69V100PV	D330214
00	690	125	gR	DN00GB69V125L	B330235	DN00GB69V125D1L	Y330255	PC00GB69V125PV	E330215
00	690	160	gR	DN00GB69V160L	C330236	DN00GB69V160D1L	Z330256	PC00GB69V160PV	F330216

Size	Rated Voltage (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I^2t (A^2s)	Clearing I^2t @ Rated Voltage (A^2s)	Watts Loss @ 100% In (W)	Watts Loss @ 80% In (W)
00	690	16	200	8	61	5	2.7
00	690	20	200	12	86	6	3.3
00	690	25	200	18	140	8	4.4
00	690	32	200	39	250	11	6.0
00	690	40	200	68	450	13	7.1
00	690	50	200	116	750	16	8.8
00	690	63	200	210	1400	18	9.9
00	690	80	200	525	3000	19	10.5
00	690	100	200	970	5400	19.5	10.7
00	690	125	200	1710	9600	24	13.2
00	690	160	200	4270	22400	25	13.7

Product weight: 140g max. for DIN80, 190g max. for DIN110 and 210g max. for DIN Plain Blades
Packaging: 3 pieces

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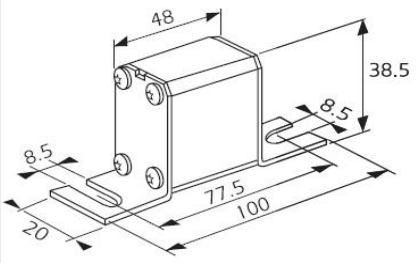
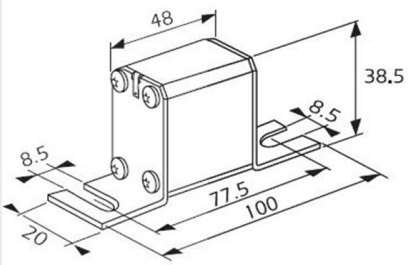
Dimensions (mm)

Size 000

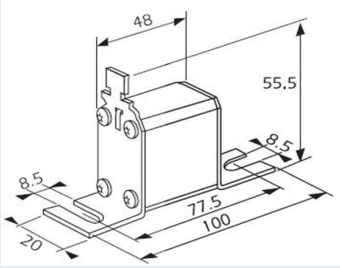
DIN80 w/o indicator



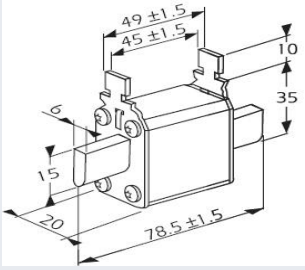
DIN80 with indicator



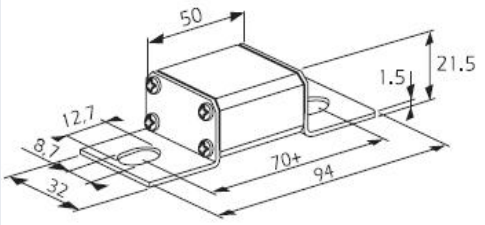
DIN80 for monitoring micro-contact



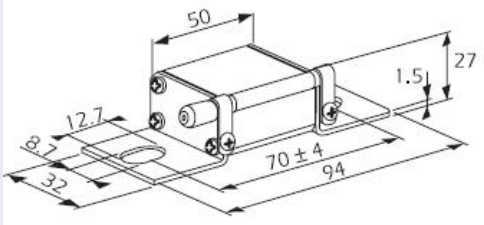
DIN Plain Blades



BS88-4 w/o indicator

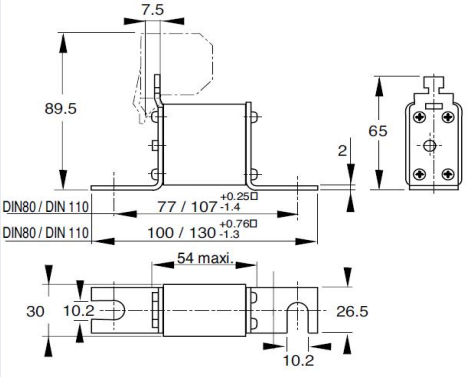


BS88-4 with indicator

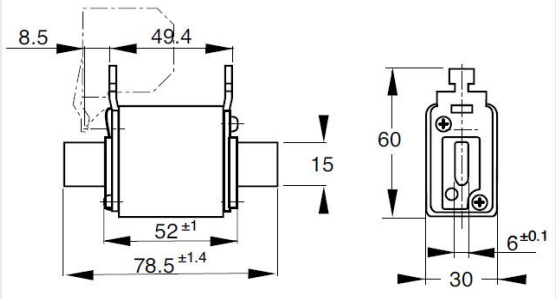


Size 00

DIN80 DIN100



DIN Plain Blades



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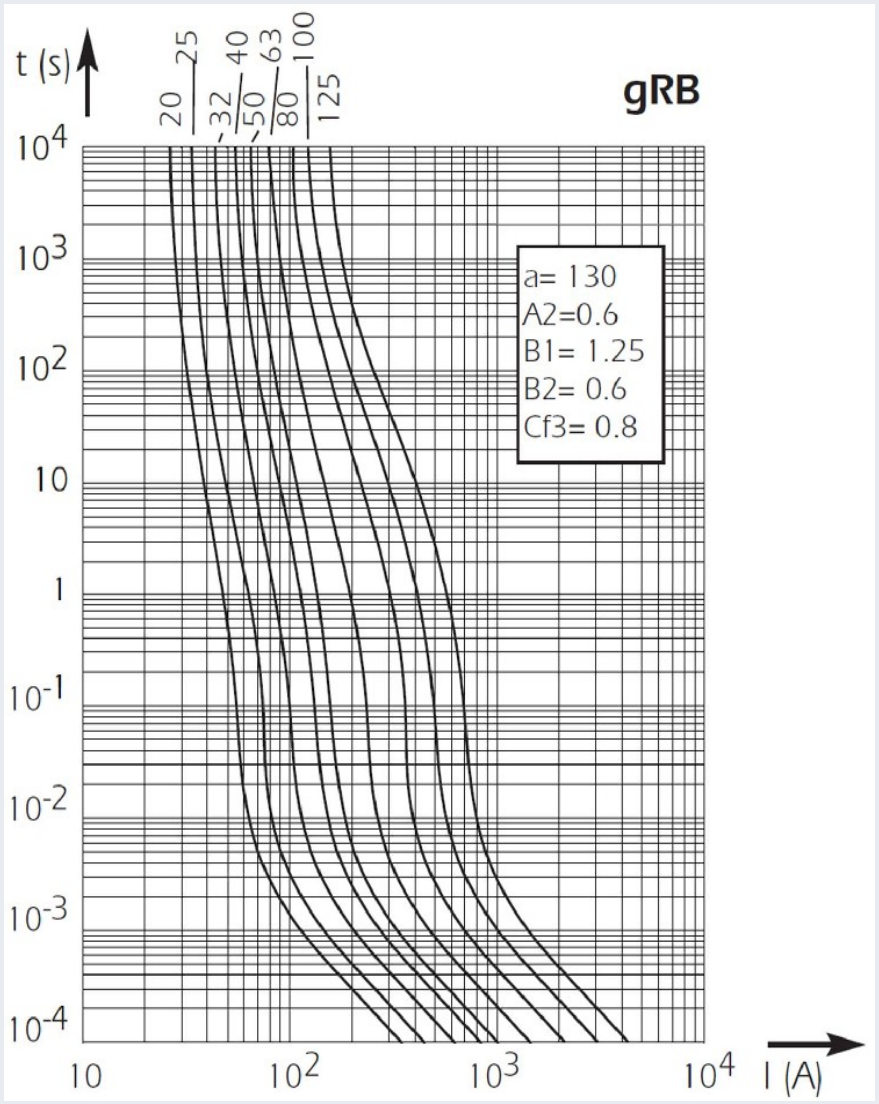
Sizes 000 and 00 gR 690VAC from 16 to 160A

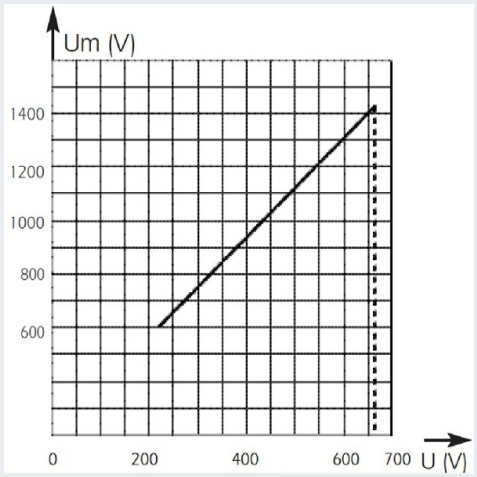
Time current characteristics
Size 000



Actual prearcing time (s)

rms value of prearc current (A) ± 10%

Peak arc voltage
Size 000



Peak arc voltage (V)

Applied AC Voltage (V)

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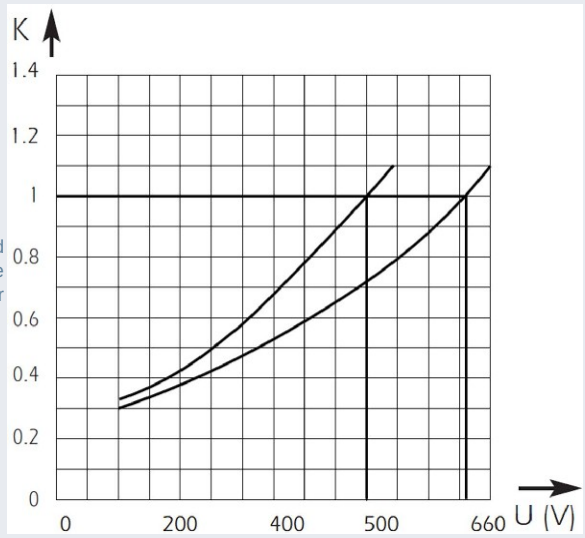
Sizes 000 and 00 gR 690VAC from 16 to 160A

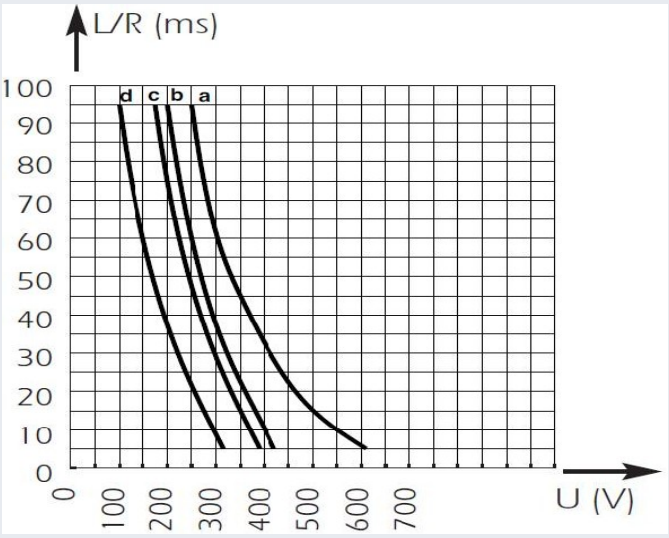
I²t multiplier coefficient
Size 000



Clearing I²t and arcing time correction factor

Applied AC voltage (V)

L/R time constant vs DC voltage capability
Size 000

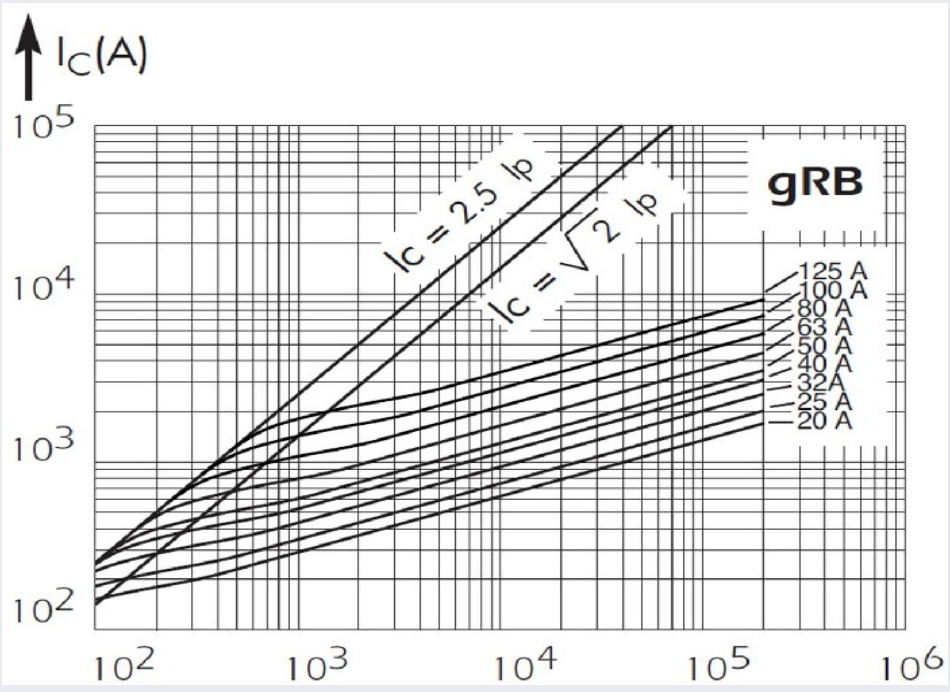


L/R time constant (ms)

DC voltage capability (V)

Curve a: Ratings from 20 to 160A
Curve b: Rating 200A
Curve c: Ratings from 250 to 315A
Curve d: Ratings from 350 to 400A

Peak let thru characteristics
Size 000



Maximum peak let thru current (A)

50 Hz rms symetrical prospective current (Ip) (A)

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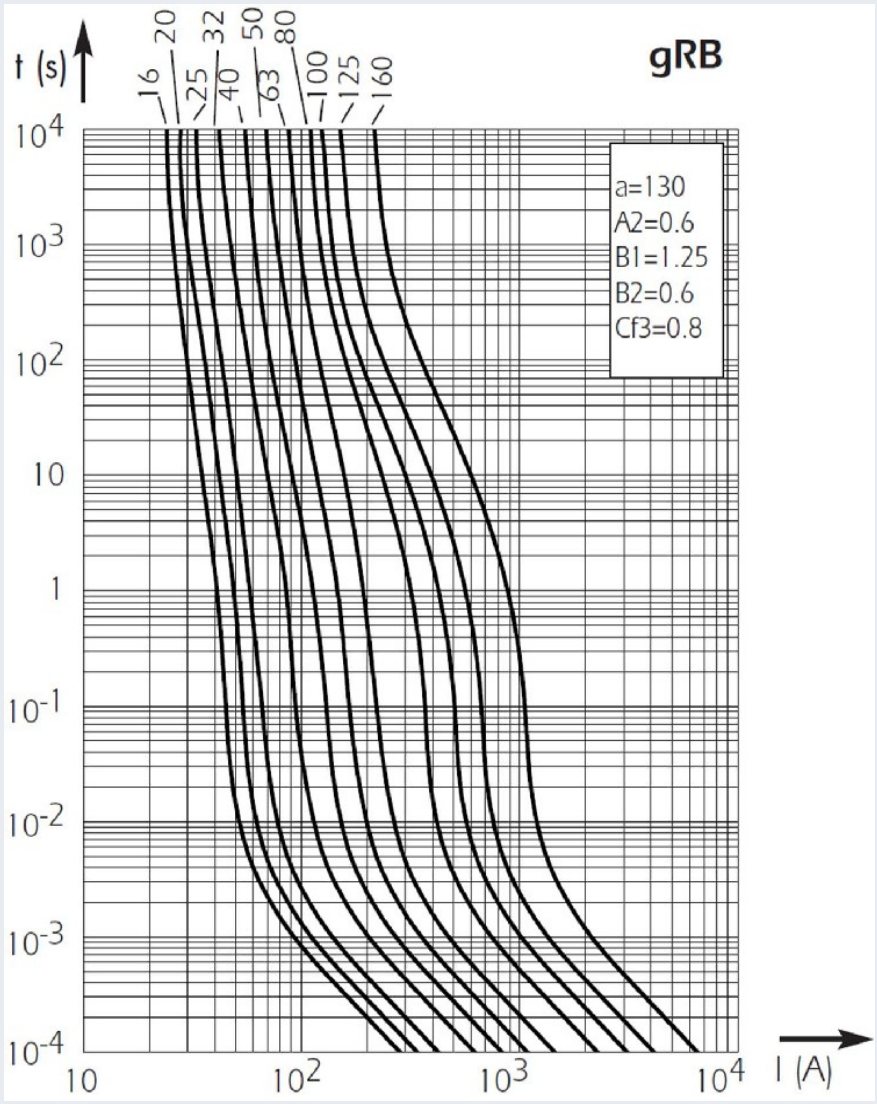
Sizes 000 and 00 gR 690VAC from 16 to 160A

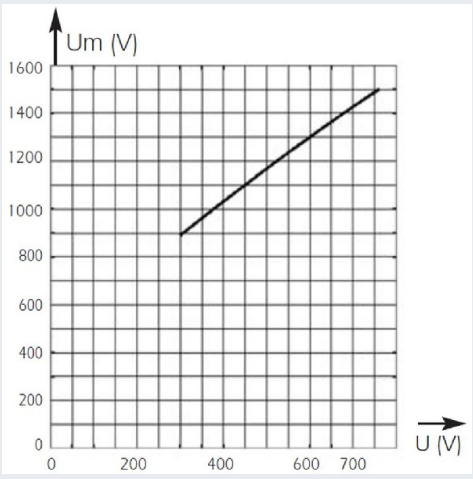
Time current characteristics
Size 00



Actual prearcing time (s)

rms value of prearc current (A) ± 10%

Peak arc voltage
Size 00



Peak arc voltage (V)

Applied AC Voltage (V)

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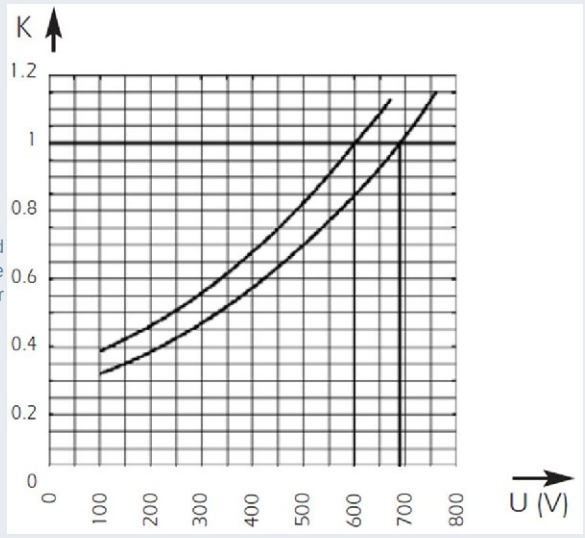
Sizes 000 and 00 gR 690VAC from 16 to 160A

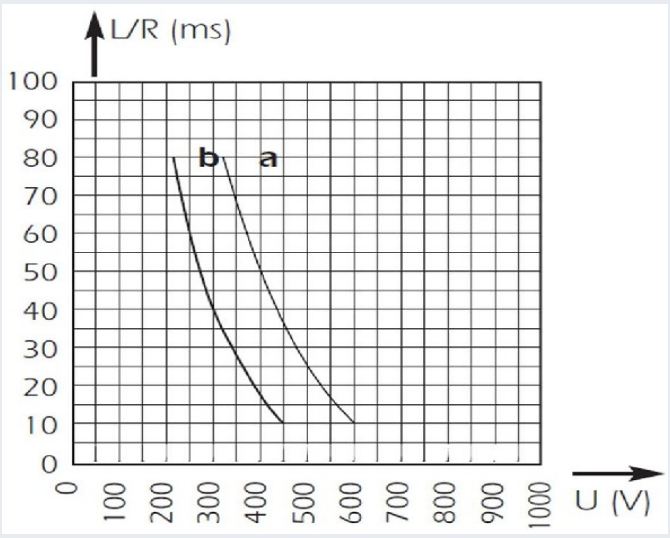
I²t multiplier coefficient
Size 00



Clearing I²t and arcing time correction factor

Applied AC voltage (V)

L/R time constant vs DC voltage capability
Size 00

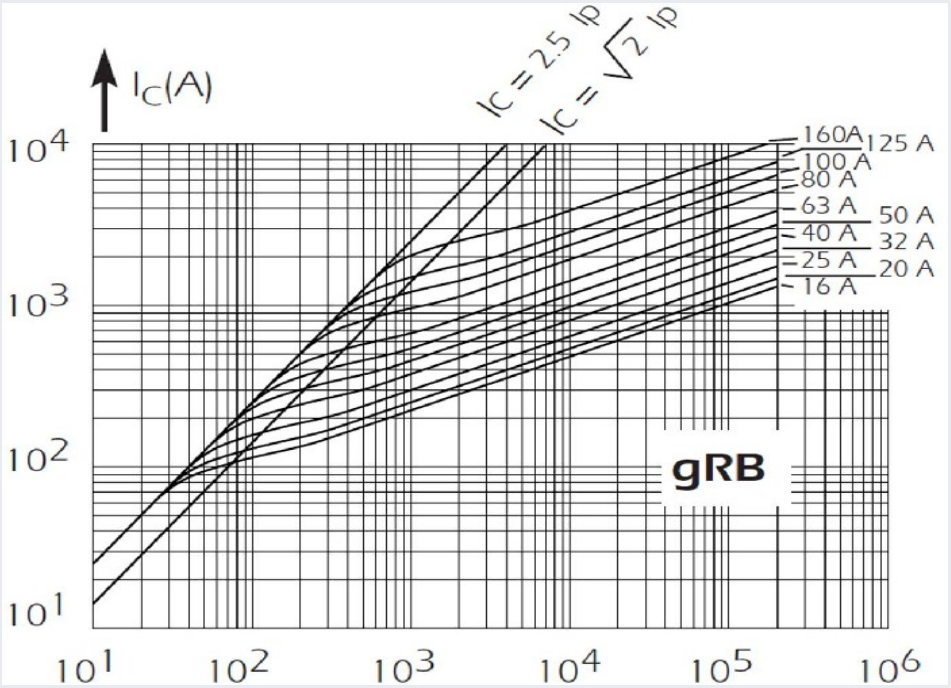


L/R time constant (ms)

DC voltage capability (V)

Curve a: Ratings from 16 to 250A
Curve b: Ratings from 315 to 450A

Peak let thru characteristics
Size 00



Maximum peak let thru current (A)

50 Hz rms symetrical prospective current (Ip) (A)