

Other Protistor® Fuses

Ferrule Fuses

14x51 & 22x58 URC / URD - 600 to 690 VAC



EXTREMELY BREAKING CAPACITY RATING FUSES:
PROTECTION OF POWER SEMI CONDUCTORS COMPLYING WITH IEC STANDARD 60269.1 AND 4

600 - 690 V AC VOLTAGE RATING

aR-CLASS ACCORDING TO VDE 636-23 AND IEC 60269.4

WITH AND WITHOUT TRIP-INDICATOR FOR SIZES 14 x 51 AND 22 x 58

UL RECOGNIZED (EXCEPT 6 A)*

Main Characteristics

Voltage rating U _N (VAC)	Size	Class	Current rating I _N (A)	Pre-arcing 2t @ 1 ms I ² t _p (A ² s)	Total clearing I ² t @ (A ² s)		Watts loss 0.8 I _N I _N		Breaking Capacity
690 V	14 x 51	URC	6	1.3	17.5* @ 660V		1.1	2	100 kA @ 690 V
			8	2.4	27.5@ 660V		1.6	2.8	
			10	4.3	40@ 660V		2	3.5	
			12	5.4	60@ 660V		2.45	4.4	
			16	13.2	100@ 660V		2.7	4.8	
			20	27	160@ 660V		2.9	5.2	
			25	53	275@ 660V		3.2	5.8	
			32	98	500@ 660V		3.9	7	
			40 (1)	130	700@ 660V		6	10.7	
			50 (1)	280	1500@ 660V		6.3	11.6	
690 V	14 x 51	URD	40 (2) 50 (2)	130 280	7 IN < I _p < 30 IN I _p ≥ 30 IN		6 6.3	10.7 11.6	100 kA @ 690 V
					850@660 1850@660	700@660 1500@660			
690 V	22 x 58	URD	25	22	125@ 660V		5.2	10	100 kA @ 690 V
			32	49	275@ 660V		5.7	11	
			40	88	480@ 660V		6.8	13	
			50	155	800@ 660V		7.8	14.9	
			63	350	1850@ 660V		8.4	16	
			80	730	3800@ 660V		9.4	17,8	
			100	1560	8000@ 660V		10	19	
600 V	22X58	URD	125	2900	14000@600V		14	22	100 kA @ 600 V
			130	3360	17700@600V		15	25	

* Without trip-indicator I^2t : 15 A²s.

(1) No trip-indicator available for this model.

(2) Models available only with trip-indicator.



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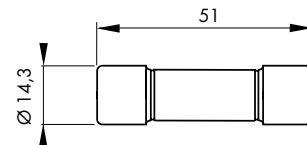
14x51 & 22x58 URC / URD - 600 to 690 VAC

All the fuses presented on this page are (except 6 A)*



14x51 - Without blown fuse indication

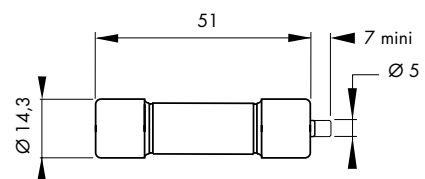
Current Rating	Designation	Ref. Number	Catalog Number
6 A	6.900 CP URC 14.51/6*	K081475	FR14UC69V6
8 A	6.900 CP URC 14.51/8	S093902	FR14UC69V8
10 A	6.900 CP URC 14.51/10	T093903	FR14UC69V10
12 A	6.900 CP URC 14.51/12	V093904	FR14UC69V12
16 A	6.900 CP URC 14.51/16	W093905	FR14UC69V16
20 A	6.900 CP URC 14.51/20	X093906	FR14UC69V20
25 A	6.900 CP URC 14.51/25	Y093907	FR14UC69V25
32 A	6.900 CP URC 14.51/32	Z093908	FR14UC69V32
40 A	6.900 CP URC 14.51/40	A093909	FR14UC69V40
50 A	6.900 CP URC 14.51/50	B093910	FR14UC69V50



Weight : 18g
Packaging : 10 pieces

14x51 - With trip-indicator

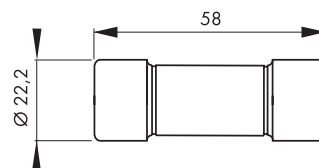
Current Rating	Designation	Ref. Number	Catalog Number
6 A	6.921 CP URC 14.51/6*	G081518	FR14UC69V6T
8 A	6.921 CP URC 14.51/8	C093911	FR14UC69V8T
10 A	6.921 CP URC 14.51/10	D093912	FR14UC69V10T
12 A	6.921 CP URC 14.51/12	E093913	FR14UC69V12T
16 A	6.921 CP URC 14.51/16	F093914	FR14UC69V16T
20 A	6.921 CP URC 14.51/20	G093915	FR14UC69V20T
25 A	6.921 CP URC 14.51/25	H093916	FR14UC69V25T
32 A	6.921 CP URC 14.51/32	J093917	FR14UC69V32T
40 A	6.921 CP URD 14.51/40	T100136	FR14UD69V40T
50 A	6.921 CP URD 14.51/50	V100137	FR14UD69V50T



Weight : 18g
Packaging : 10 pieces

22x58 - Without blown fuse indication

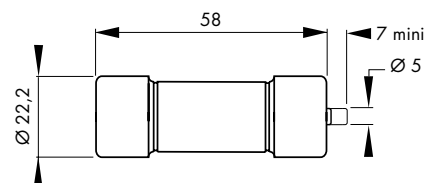
Current Rating	Designation	Ref. Number	Catalog Number
25 A	6.900 CP URD 22x58/25	B093956	FR22UD69V25
32 A	6.900 CP URD 22x58/32	Z094828	FR22UD69V32
40 A	6.900 CP URD 22x58/40	S094822	FR22UD69V40
50 A	6.900 CP URD 22x58/50	W094779	FR22UD69V50
63 A	6.900 CP URD 22x58/63	T094823	FR22UD69V63
80 A	6.900 CP URD 22x58/80	A094829	FR22UD69V80
100 A	6.900 CP URD 22x58/100	Y094827	FR22UD69V100



Weight: 57 g
Packaging: 10 pieces

22x58 - With trip-indicator

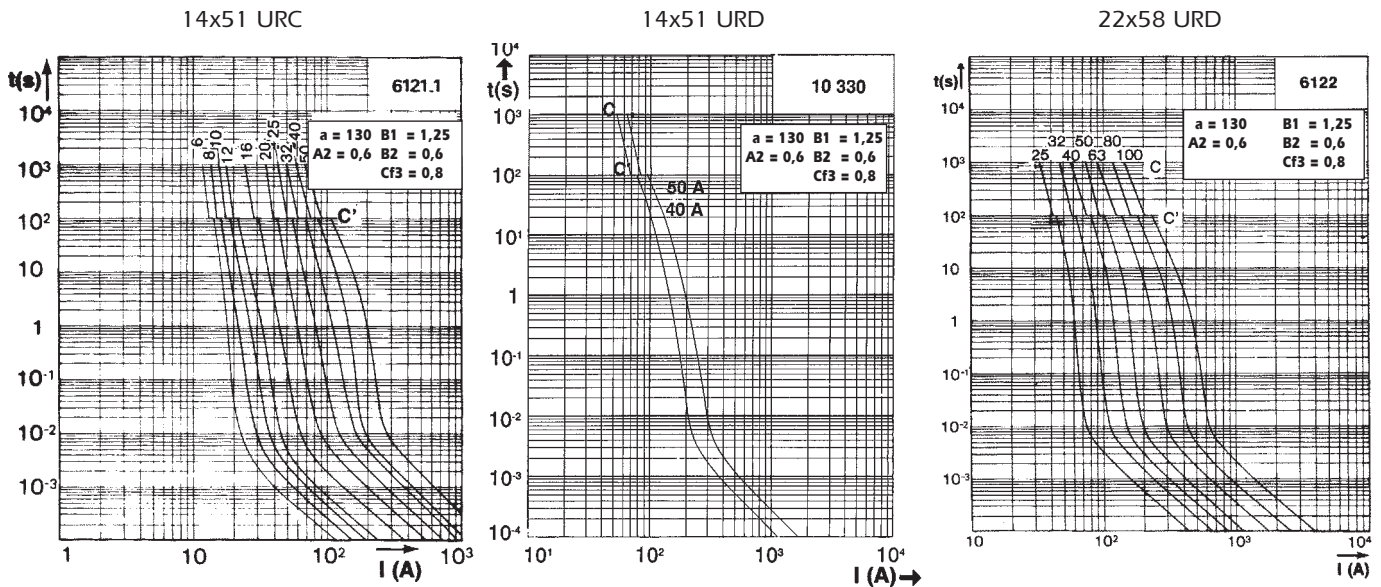
Current Rating	Designation	Ref. Number	Catalog Number
25 A	6,921 CP URD 22x58/ 25	H093801	FR22UD69V25T
32 A	6,921 CP URD 22x58/ 32	C093957	FR22UD69V32T
40 A	6,921 CP URD 22x58/ 40	J093802	FR22UD69V40T
50 A	6,921 CP URD 22x58/ 50	D093958	FR22UD69V50T
63 A	6,921 CP URD 22x58/ 63	K093803	FR22UD69V63T
80 A	6,921 CP URD 22x58/ 80	E093959	FR22UD69V80T
100 A	6,921 CP URD 22x58/100	F093960	FR22UD69V100T
125 A	621 CP URD 22x58/125	A220708	FR22UD60V125T
135 A	621 CP URD 22x58/135	B220709	FR22UD60V135T



Weight: 57 g
Packaging: 10 pieces

See Gears and Fuse gears section

Time vs current characteristics

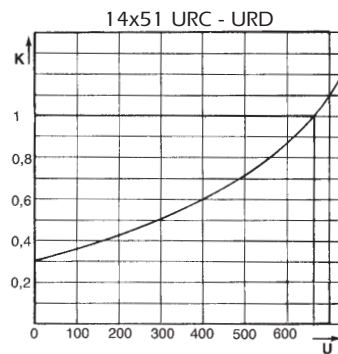


These curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

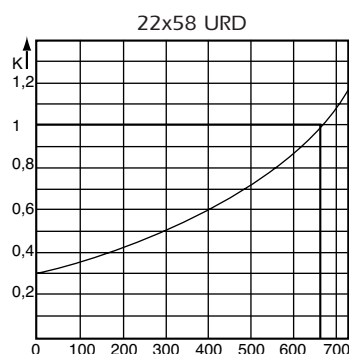
Tolerance for mean pre-arcing current $\pm 10\%$

Corrective factor - Peak arc voltage

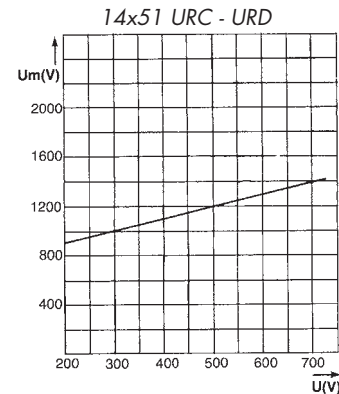
Corrective factor



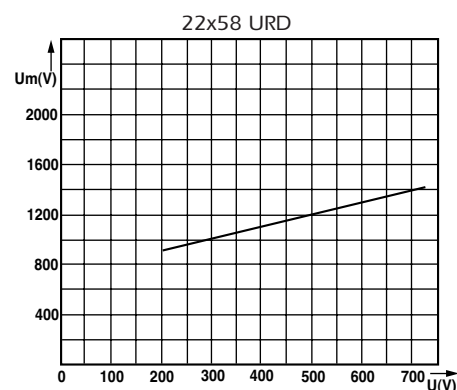
The mean curves show the variation of the total clearing time ($I_2 t$) and the total clearing duration t as a function of operating voltage U .



Peak arc voltage



This curve shows the peak value U_m of the arc voltage which appears across the fuse-link as a function of the operating voltage U @ $\cos \phi = 0.15$.



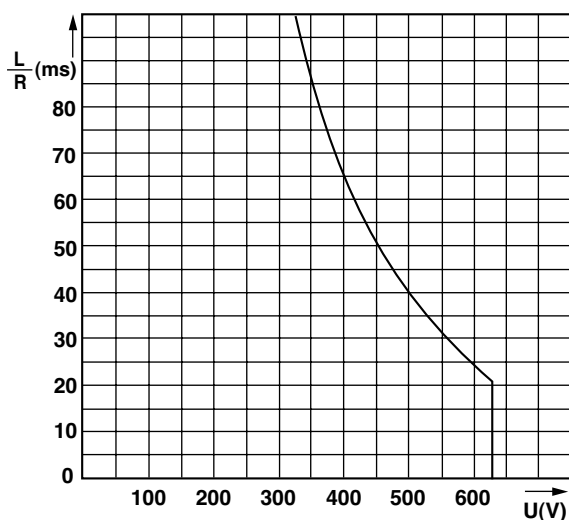
Other Protistor® Fuses

Ferrule Fuses

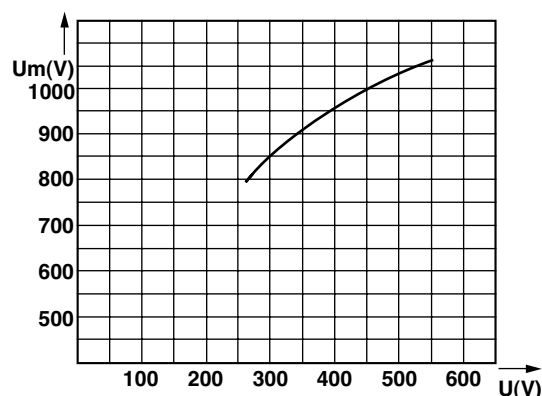
14x51 & 22x58 URC / URD - 600 to 690 VAC

DC Application data

14x51 URC - URD

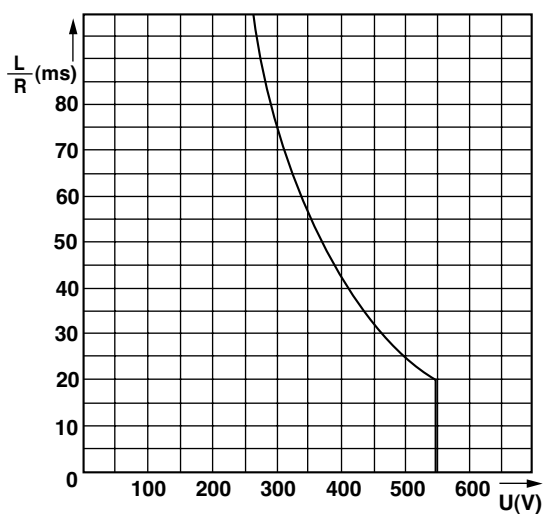


14x51 URC - URD

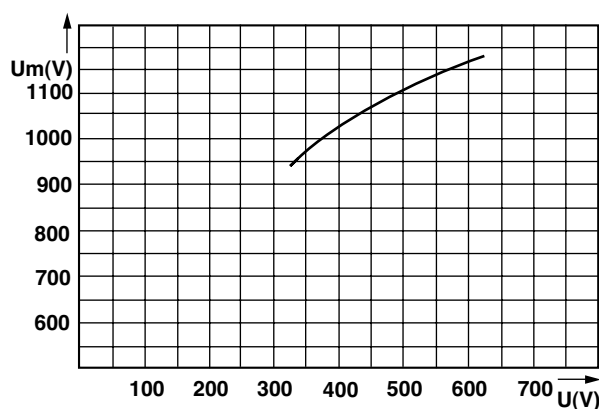


Minimum breaking current: see time-current characteristics

22x58 URD



22x58 URD



This curve indicates the permissible value of time constant L/r as a function of DC working voltage

This curve shows the peak value U_m of the arc voltage which appears across the fuse-link as a function of the operating voltage U .



Other Protistor® Fuses Ferrule Fuses

14x51 URGB & 22x58 URGA - 600 V to 690 VAC



EXTREMELY HIGH BREAKING CAPACITY FUSES:
PROTECTION OF POWER SEMICONDUCTORS AS PER
IEC STANDARD 60269.1 AND 4

600 V - 690 V AC VOLTAGE RATING

aR CLASS AS PER VDE 636-23 AND IEC 60269.4

WITH AND WITHOUT TRIP-INDICATOR
FOR SIZES 14 x 51 AND 22 x 58

Main Characteristics

Voltage rating U_N (VAC)	Size	Class	Current rating I_N (A)	Pre-arcing $I^2t @ 1 \text{ ms}$ I^2tp (A ² s)	Total clearing $I^2t @ A^2s$		Watts loss		Tested Breaking capacity
					660 V		0,8 I_N	I_N	
690 V	14 x 51	URGB	8	3.3	20	17	1.45	2.7	200 kA @ 690 V
			10	6.0	37	30	1.85	3.4	
			12	9.3	75	60	2.5	4.6	
			16	15.6	95	75	3.4	6.2	
			20	30.0	175	145	4	7.4	
			25	53.5	300	250	4.7	8.6	
			32	100	550	460	5.7	10.6	
			40	214	1150	940	6.2	11.5	
			50	480	2550	2070	7	13	
	22 x 58	URGA	25	45	210		4.7	8.5	200 kA @ 690 V
			32	84	400		5.7	10.3	
			40	150	700		7.1	12.8	
			50	270	1270		8.7	15.7	
			63	595	2770		9.8	17.7	
			80	1165	5500		12	21.7	
600* - 690 V	22 x 58	URGA	100*	2150	9000*		14.2	25.6	200 kA @600 V
							14.2	25.6	

*Operating voltage limited to 600 V for the model with blown fuse trip-indicator / Total clearing $I^2t @ 600 \text{ V} = 9000 \text{ A}^2s$
Minimum operating voltage for built-in trip-indicator: 20 V

Semiconductor (AC) fuses

Other Protistor® Fuses

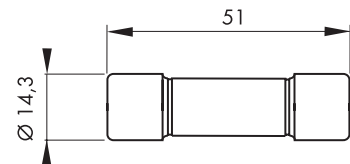
Ferrule Fuses

14x51 URGB & 22x58 URG A - 600 V to 690 VAC

References

14x51 - Without blown fuse trip-indicator

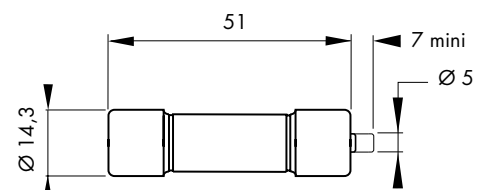
Current Rating	Designation	Ref. Number	Catalog Number
8 A	6.900 CP URGB 14.51/8	T078033	FR14UB69V8
10 A	6.900 CP URGB 14.51/10	V078034	FR14UB69V10
12 A	6.900 CP URGB 14.51/12	W078035	FR14UB69V12
16 A	6.900 CP URGB 14.51/16	X078036	FR14UB69V16
20 A	6.900 CP URGB 14.51/20	Y078037	FR14UB69V20
25 A	6.900 CP URGB 14.51/25	Z078038	FR14UB69V25
32 A	6.900 CP URGB 14.51/32	A078039	FR14UB69V32
40 A	6.900 CP URGB 14.51/40	B078040	FR14UB69V40
50 A	6.900 CP URGB 14.51/50	C078041	FR14UB69V50



Weight: 18 g
Packaging: 10 pieces

14x51 - With trip-indicator

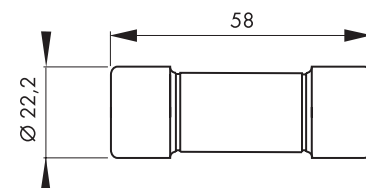
Current Rating	Designation	Ref. Number	Catalog Number
8 A	6.921 CP URGB 14.51/8	D078042	FR14UB69V8T
10 A	6.921 CP URGB 14.51/10	E078043	FR14UB69V10T
12 A	6.921 CP URGB 14.51/12	F078044	FR14UB69V12T
16 A	6.921 CP URGB 14.51/16	G078045	FR14UB69V16T
20 A	6.921 CP URGB 14.51/20	H078046	FR14UB69V20T
25 A	6.921 CP URGB 14.51/25	J078047	FR14UB69V25T
32 A	6.921 CP URGB 14.51/32	K078048	FR14UB69V32T
40 A	6.921 CP URGB 14.51/40	L078049	FR14UB69V40T
50 A	6.921 CP URGB 14.51/50	M078050	FR14UB69V50T



Weight: 18 g
Packaging: 10 pieces

22x58 - Without blown fuse trip-indicator

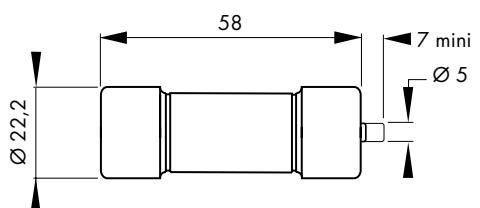
Current Rating	Designation	Ref. Number	Catalog Number
25 A	6.900 CP URG A 22.58/25	C095245	FR22UA69V25
32 A	6.900 CP URG A 22.58/32	D095246	FR22UA69V32
40 A	6.900 CP URG A 22.58/40	E095247	FR22UA69V40
50 A	6.900 CP URG A 22.58/50	F095248	FR22UA69V50
63 A	6.900 CP URG A 22.58/63	G095249	FR22UA69V63
80 A	6.900 CP URG A 22.58/80	H095250	FR22UA69V80
100 A	6.900 CP URG A 22.58/100	N078051	FR22UA69V100



Weight: 57 g
Packaging: 10 pieces

22x58 - With trip-indicator

Current Rating	Designation	Ref. Number	Catalog Number
25 A	6.921 CP URG A 22.58/25	T095260	FR22UA69V25T
32 A	6.921 CP URG A 22.58/32	V095261	FR22UA69V32T
40 A	6.921 CP URG A 22.58/40	W095262	FR22UA69V40T
50 A	6.921 CP URG A 22.58/50	X095263	FR22UA69V50T
63 A	6.921 CP URG A 22.58/63	Y095264	FR22UA69V63T
80 A	6.921 CP URG A 22.58/80	Z095265	FR22UA69V80T
100 A	6.21 CP URG A 22.58/100	N098222	FR22UA60V100T



Weight: 57 g
Packaging: 10 pieces

See Gears and Fuse gears section



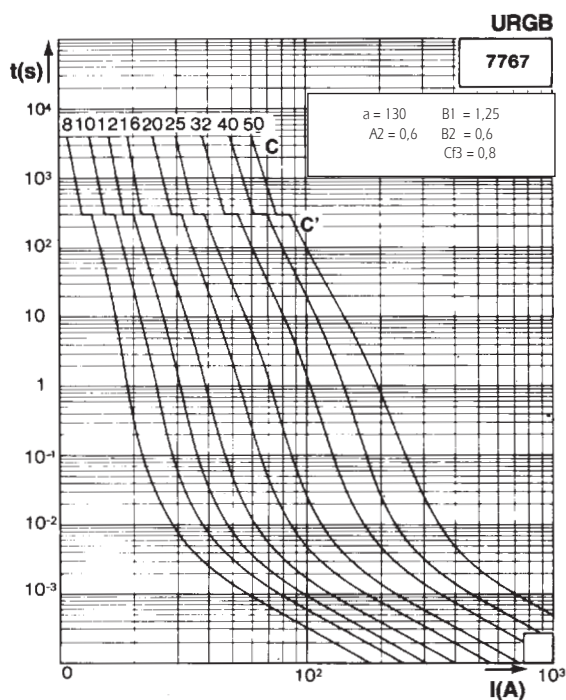
Other Protistor® Fuses

Ferrule Fuses

14x51 URGB & 22x58 URG A - 600 V to 690 VAC

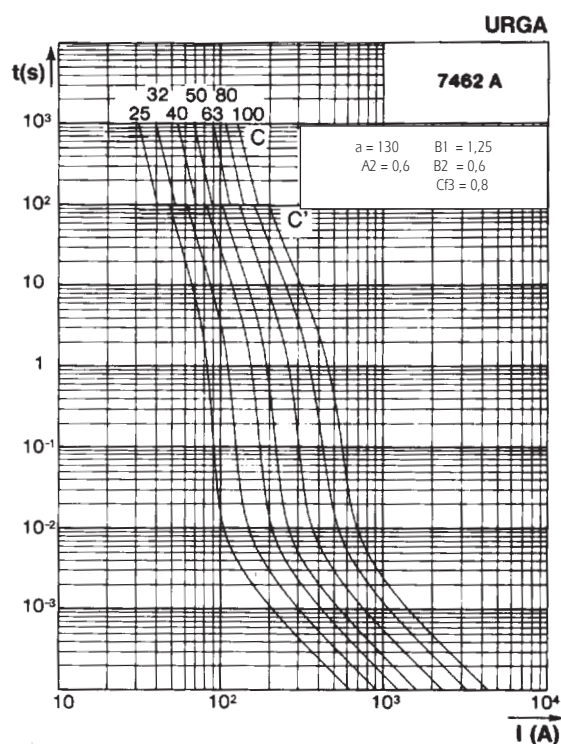
Electrical Characteristics

Time vs current characteristics



TOLERANCE OF MEAN PRE-ARCING CURRENT $\pm 10\%$

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



TOLERANCE FOR MEAN PRE-ARCING CURRENT $\pm 8\%$.

Semiconductor (AC) fuses

Other Protistor® Fuses

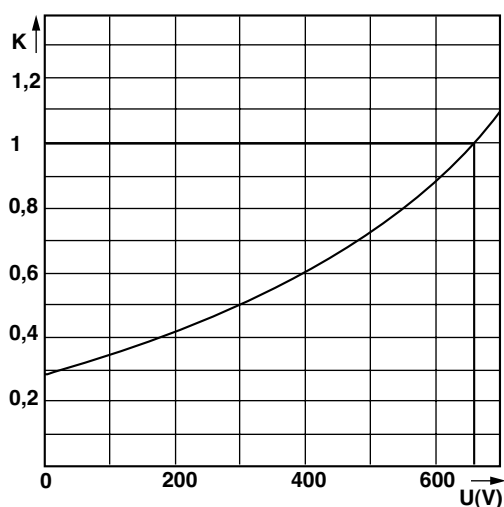
Ferrule Fuses

14x51 URGB & 22x58 URG A - 600 V to 690 VAC

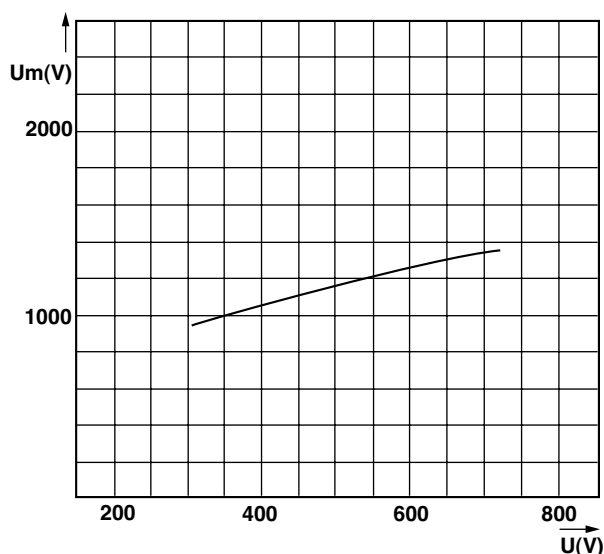
Corrective factor - Peak arc voltage

Corrective factor

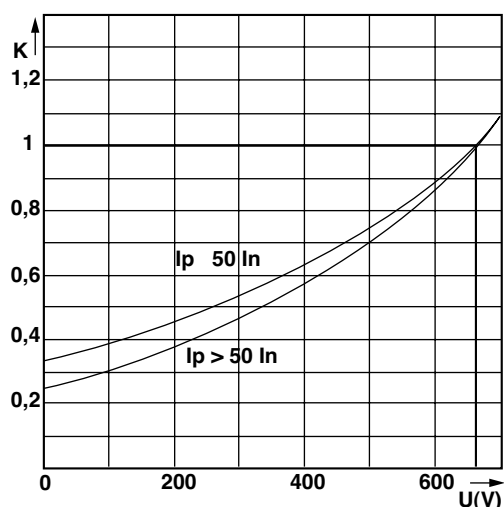
URGB



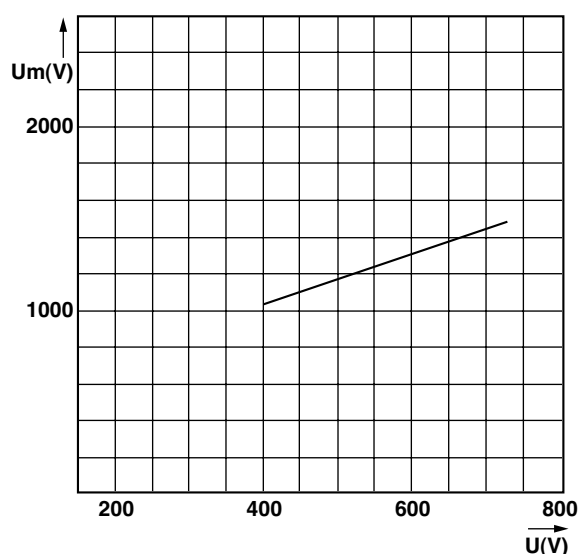
URGB



URGA



URGA



These mean curves show the variation of the total clearing time ($I^2 t_t$) and the total clearing duration t_t as a function of operating voltage U .

This curve shows the peak value U_m of the arc voltage which appears across the fuse link as a function of operating voltage U @ $\cos \varphi = 0.15$.