

## 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 $I^t @ 1 \text{ ms}$ $I^{tp}$ (A <sup>2</sup> s)	Total clearing $I^t @ U_N$ $I^{tt}$ (A <sup>2</sup> s)	Watts loss		Tested breaking capacity		
					0.8 $I_N$	$I_N$			
600 V without blown fuse indicator	URD **	100 mA	/	1.2 10 <sup>-3</sup>	0.23	0.4	200 kA @ 600 V		
		125 mA		2.3 10 <sup>-3</sup>	0.25	0.44			
		160 mA		5.2 10 <sup>-3</sup>	0.28	0.48			
		200 mA		8 10 <sup>-3</sup>	0.34	0.58			
		250 mA		18 10 <sup>-3</sup>	0.35	0.60			
		315 mA		33 10 <sup>-3</sup>	0.42	0.73			
		400 mA		56 10 <sup>-3</sup>	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

FERRAZ SHAWMUT  
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**MERSEN**



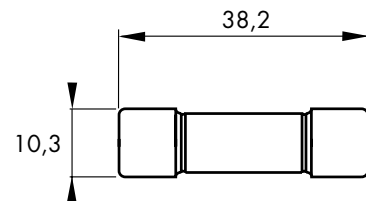
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#### 10.3x38 - Without blown fuse indicator

Current Rating	Designation	Ref. Number	Catalog Number
100 mA	A 060 URD 0.100T13	H077632	A060UD0.100T13
125 mA	A 060 URD 0.125T13	J077633	A060UD0.125T13
160 mA	A 060 URD 0.160T13	K077634	A060UD0.160T13
200 mA	A 060 URD 0.200T13	L077635	A060UD0.200T13
250 mA	A 060 URD 0.250T13	M077636	A060UD0.250T13
315 mA	A 060 URD 0.315T13	N077637	A060UD0.315T13
400 mA	A 060 URD 0.400T13	P077638	A060UD0.400T13
500 mA	A 060 URD 0.500T13*	Q077639	A060UD0.500T13
630 mA	A 060 URD 0.630T13*	R077640	A060UD0.630T13
800 mA	A 060 URD 0.800T13*	S077641	A060UD0.800T13

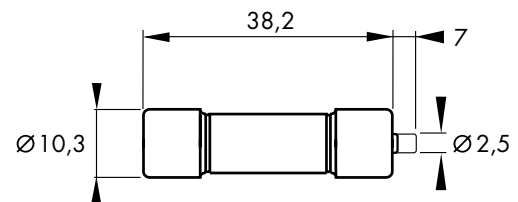


\* UL Recognized 

Fuses mounted in clips or fuse disconnectors

#### 10.3x38 - With trip-indicator

Current Rating	Designation	Ref. Number	Catalog Number
1 A	A 050 URD 001 T13 I	P076925	A050URD1T13I
1.25 A	A 050 URD 001.2 T13 I	H076597	A050URD1.2T13I
1.6 A	A 050 URD 001.6 T13 I	G076596	A050URD1.6T13I
2 A	A 050 URD 002 T13 I	Q076926	A050URD2T13I
2.5 A	A 050 URD 002.5 T13 I	F076595	A050URD2.5T13I
3.15 A	A 050 URD 003 T13 I	R076927	A050URD3T13I
4 A	A 050 URD 004 T13 I	S076928	A050URD4T13I
5 A	A 050 URD 005 T13 I	T076929	A050URD5T13I
6 A	A 050 URB 006 T13 I	V076930	A050URB6T13I
8 A	A 050 URB 008 T13 I	W076931	A050URB8T13I
10 A	A 050 URB 010 T13 I	X076932	A050URB10T13I
12 A	A 050 URB 012 T13 I	Y076933	A050URB12T13I
16 A	A 050 URB 016 T13 I	Z076934	A050URB16T13I
20 A	A 050 URB 020 T13 I	A076935	A050URB20T13I
25 A	A 050 URL 025 T13 I	B076936	A050URL25T13I
30 A	A 050 URL 030 T13 I	C076937	A050URL30T13I



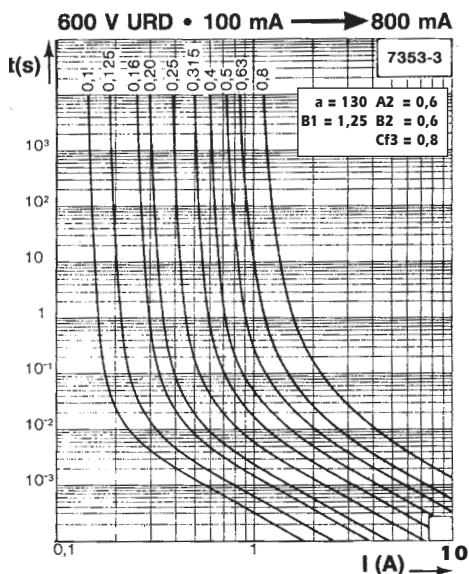
Fuses with trip indicator mounted in clips

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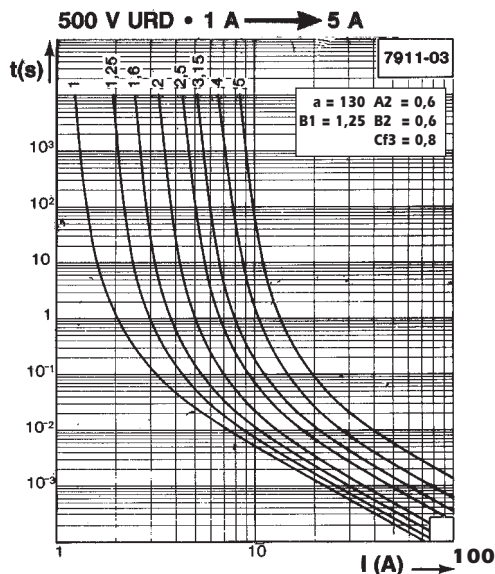
### Electrical characteristics

#### Time vs current characteristics

WITHOUT BLOWN FUSE INDICATOR

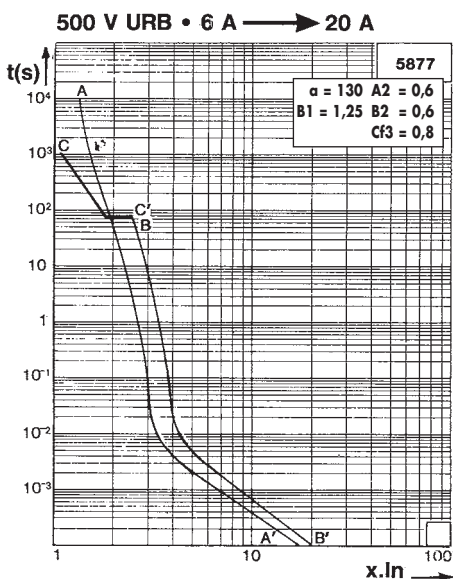


WITH TRIP INDICATOR

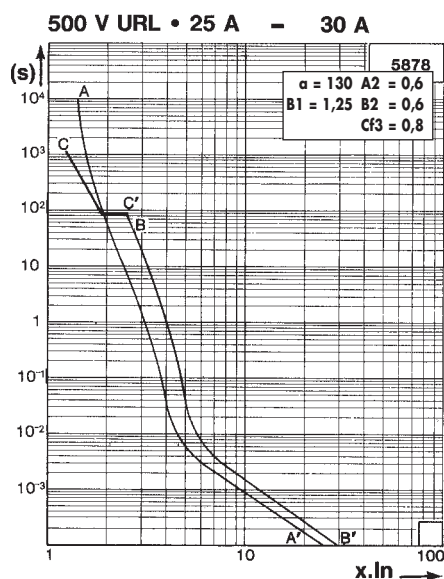


These curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.  
Tolerance for mean pre-arcing current  $\pm 10\%$

WITH TRIP INDICATOR



WITH TRIP INDICATOR



These curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.  
as a multiple of current rating.





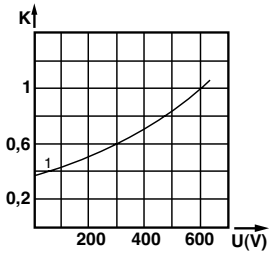
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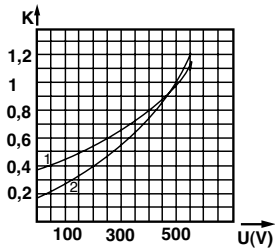
## Corrective factor - Peak arc voltage

### Corrective factor



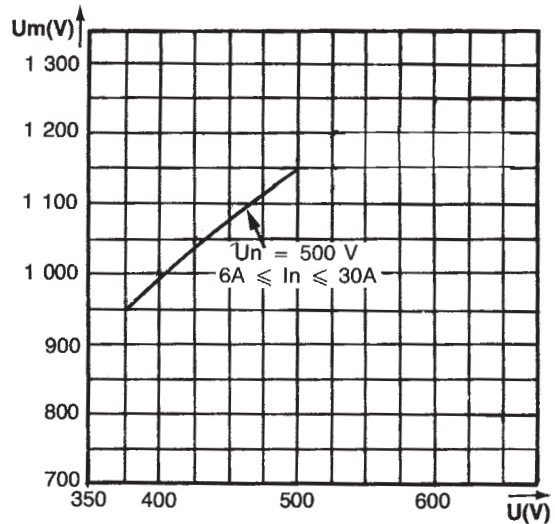
600 V UR  
1 : 0.1 up to 0.8 A

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



500 V UR  
1 : 1 up to 5 A  
2 : 6 up to 30 A

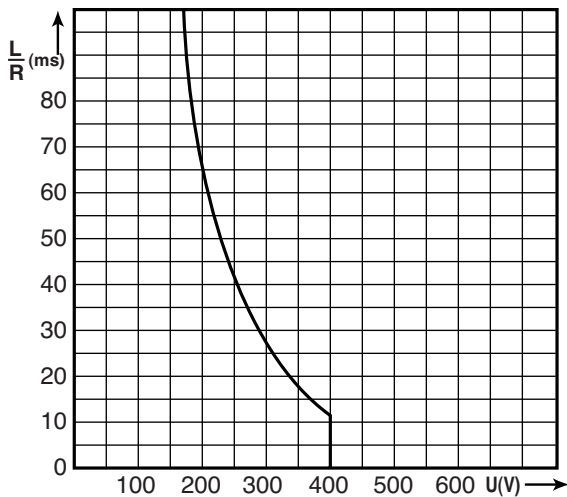
### Peak arc voltage



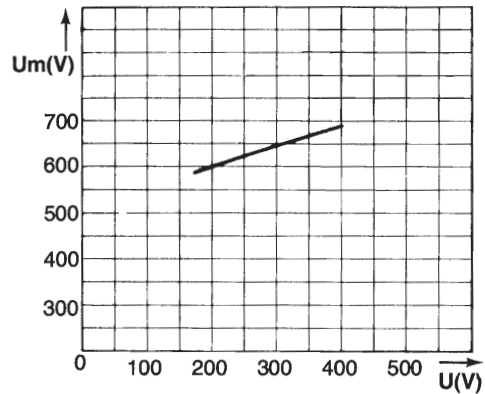
This curve shows the peak value  $U_m$  of the arc voltage which appears across the fuse link as a function of the operating voltage U @  $\cos \varphi = 0.15$ .

## D.C. Application data for fuses with trip indicator

500 V URD  $I_N \geq 6A$



500 V URD  $I_N \geq 6A$



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.