

Semiconductor (AC) fuses

Other Protistor® Fuses BS88-4 Fuses 10x28, 17x27 - 250 VAC

BRITISH STANDARD
250 VAC - URE - URGs - URZ
From 5 to 180 A
Sizes 10x28 - 17x27

Extremely high breaking capacity fuses:
protection of power semiconductors as per
IEC standard 60269.1 and 4

250 V voltage rating complying with IEC 33

gr class (ratings from 5 to 32 a)

AS PER VDE 636-23 AND IEC 60269.4

aR CLASS (RATINGS FROM 7 to 180 A) COMPLYING WITH
VDE 636-23 AND IEC 60269.4

TWO MODELS COMPLYING WITH BS 88-4

- WITHOUT INDICATOR

- WITH SEPARATE TRIP-INDICATOR (SIZE 17x27)

17x27 URGs are UL Recognized



Main Characteristics

Voltage rating U_N (V)	Size	Class	Current rating I_N (A)	Pre-arcing $I^2t @ 1 \text{ ms}$ I^2tp (A ² s)	Total clearing $I^2t @ U_N$ A ² s		Watts loss		Tested breaking capacity
					$I_p \leq 30I_N$	$I_p > 30I_N$	$0.8 I_N$	I_N	
250V	10 x28	URE	5	1.3	10	11	0.6	1	160k A @ 250 V
			6	1.8	13	15	0.7	1.2	
			10	2.4	18	20	1.2	2.1	
			12	4.3	28	33	1.6	2.8	
			15	6.7	41	48	2.0	3.5	
			20	15.0	85	100	2.2	4.0	
			25	27.0	135	160	2.6	4.7	
			32	53.0	240	280	3.0	5.4	
	17x27	URGS	7	1.3	8,5	9,8	0.56	1	160k A @ 250 V
			10	4.5	21	23,8	0.84	1.5	
			12	5.9	27	31	1.1	2.0	
			16	11.2	50	59	1.7	3.0	
			20	15.6	80	100	2.2	3.9	
			25	30.0	130	160	2.7	4.8	
			30	45.0	195	235	3.2	5.6	
			35	63.0	270	330	3.7	6.5	
			50	180.0	7890	940	4.9	8.8	
			60	250.0	1100	1310	5.8	10.4	
			75	380.0	1670	1990	7.2	13.6	
			80	480.0	2100	2530	7.25	13.7	
		URZ	100	730.0	3350	4060	6.5	11.5	160k A @ 250 V
			125	850.0	5720	6920	6.7	12.3	
			150	1250.0	7930	9590	7.4	13.6	
			160	1730.0	9600	11700	8.8	15.6	
			180	2090.0	14500	17500	9.5	17	

Minimum Operating voltage for separate trip indicator = 20 V



Other Protistor® Fuses

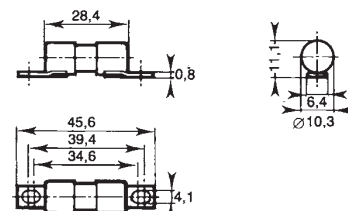
BS88-4 Fuses

10x28, 17x27 - 250 VAC

CP 10x28 - Without trip-indicator

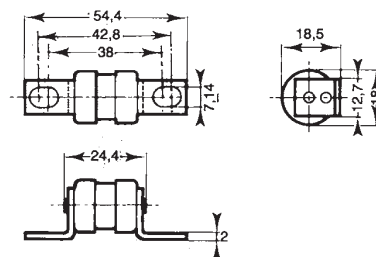
Size	Designation	Ref. Number	Pack.	Catalog Number
10x28	2.5 URE 10/5	M082489	10 (11g)	BS10UE25V5
	2.5 URE 10/6	E097478		BS10UE25V6
	2.5 URE 10/10	L082488		BS10UE25V10
	2.5 URE 10/12	P097487		BS10UE25V12
	2.5 URE 10/15	K082487		BS10UE25V15
	2.5 URE 10/20	J082486		BS10UE25V20
	2.5 URE 10/25	X097494		BS10UE25V25
	2.5 URE 10/32	N081984		BS10UE25V32

**BBS 88 part 4
requires respectively
Ø8.7 and 8.8



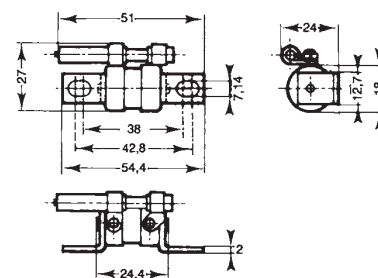
CP 17x27 - Without trip-indicator

Size	Designation	Ref. Number	Pack.	Catalog Number
17x27	2.5 URGs 17/7	M076647	10 (30g)	BS17US25V7
	2.5 URGs 17/10	N076648		BS17US25V10
	2.5 URGs 17/12	P076649		BS17US25V12
	2.5 URGs 17/16	Q076650		BS17US25V16
	2.5 URGs 17/20	L097507		BS17US25V20
	2.5 URGs 17/25	R076651		BS17US25V25
	2.5 URGs 17/30	S076652		BS17US25V30
	2.5 URGs 17/35	T076653		BS17US25V35
	2.5 URGs 17/50	V076654		BS17US25V50
	2.5 URGs 17/60	W076655		BS17US25V60
	2.5 URGs 17/75	X076656		BS17US25V75
	2.5 URGs 17/80	Z085559		BS17US25V80
	2.5 URZ 17/100	Y085558		BS17UZ25V100
	2.5 URZ 17/125	G097526		BS17UZ25V125
	2.5 URZ 17/150	W085556		BS17UZ25V150
	2.5 URZ 17/160	H097527		BS17UZ25V160
	2.5 URZ 17/180	N097532		BS17UZ25V180



CP 17x27 - With separated trip-indicator BS88-4

Size	Designation	Ref. Number	Pack.	Catalog Number
17x27	2.5 URGs 17P7	P097533	10 (40g)	BS17US25V7P
	2.5 URGs 17P10	Q097534		BS17US25V10P
	2.5 URGs 17P12	S097536		BS17US25V12P
	2.5 URGs 17P16	X097540		BS17US25V16P
	2.5 URGs 17P20	B097544		BS17US25V20P
	2.5 URGs 17P25	D097546		BS17US25V25P
	2.5 URGs 17P30	E097547		BS17US25V30P
	2.5 URGs 17P35	F097548		BS17US25V35P
	2.5 URGs 17P50	J097551		BS17US25V50P
	2.5 URGs 17P60	H081082		BS17US25V60P
	2.5 URGs 17P75	K097552		BS17US25V75P
	2.5 URGs 17P80	L097553		BS17US25V80P
	2.5 URZ 17P100	P097556		BS17UZ25V100P
	2.5 URZ 17P125	Q097557		BS17UZ25V125P
	2.5 URZ 17P150	R097558		BS17UZ25V150P
	2.5 URZ 17P160	S097559		BS17UZ25V160P
	2.5 URZ 17P180	T097560		BS17UZ25V180P



Microswitch MC6.3 GR 2-5N Ref: Y301015

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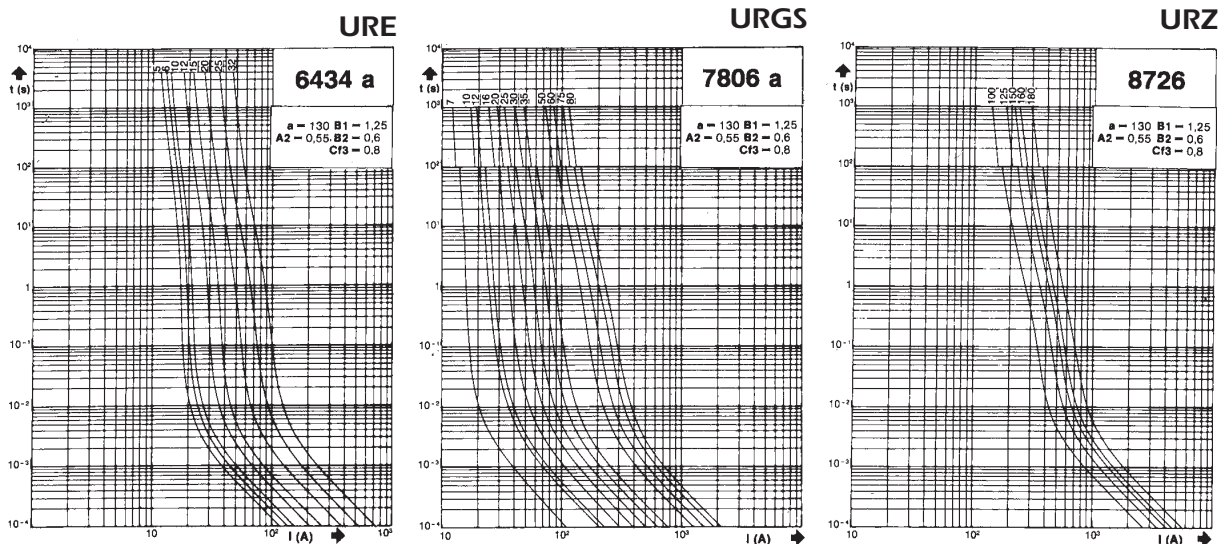
Other Protistor® Fuses

BS88-4 Fuses

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Electrical characteristics

Times vs current characteristics

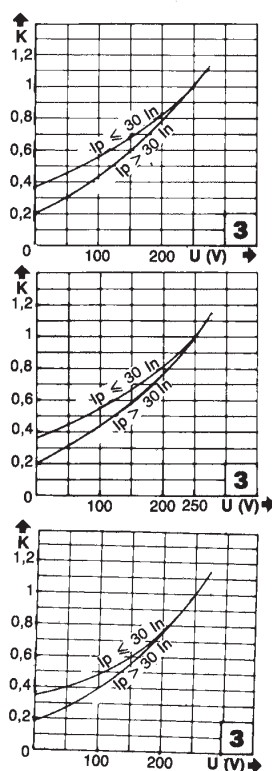


* These curves indicate, for each rated current, the pearcing time vs. the R.M.S. pre-arcing current.

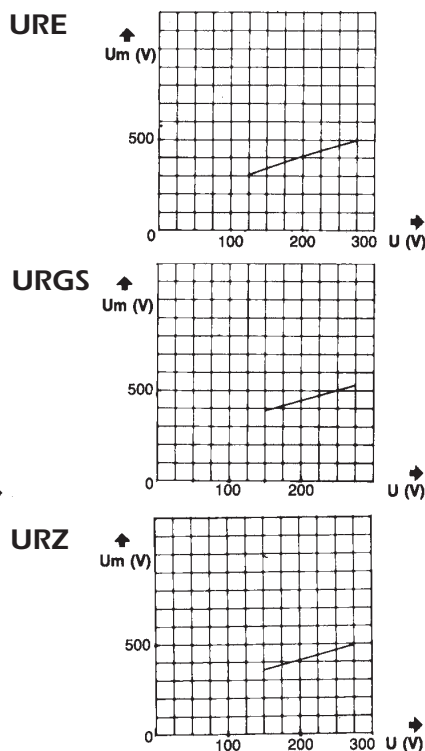
* Tolerance for the mean pre-arcing current $\pm 10\%$

Corrective factor - Peak arc voltage

Corrective factor



Peak arc voltage



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

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

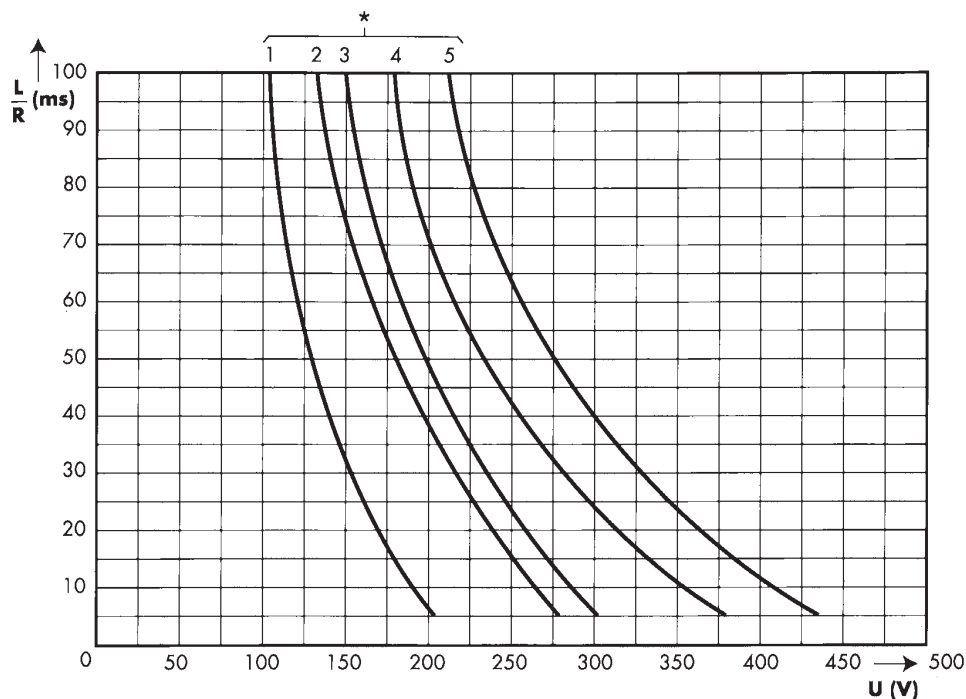


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D.C Applications data



▪ These curve indicate the permissible value of time constant L/R as a function of the D.C. working voltage.

▪ These I_{pm} values give the minimum DC interrupting current in amps.

Curves # and I_{pm} for each rating			
Class	Rated current	*	$I_{pm}(A)$
URE	5	5	40
	6	5	50
	10	5	55
	12	5	80
	15	5	100
	20	5	130
	25	5	175
	32	5	255
URGS	7	5	40
URZ	100	4	190
	125	3	250
	150	2	300
	160	2	330
	180	1	400

for URGS class fuses, consult us.

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Other Protistor® Fuses

BS88-4 Fuses

Microswitches for BS88-4 Protistor®

MICROSWITCH SYSTEMS ADAPTED
TO THE FOLLOWING FUSES:

- BS88 - 4 separated trip-indicator
- BS88 - 4 built-in trip-indicator

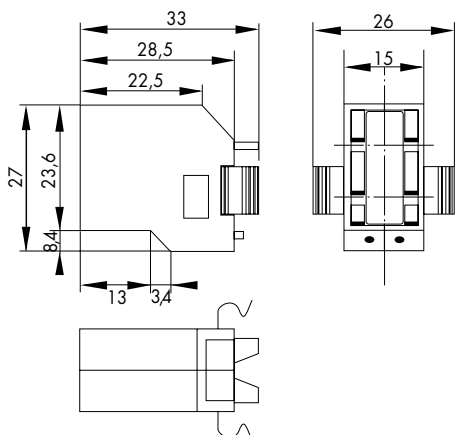
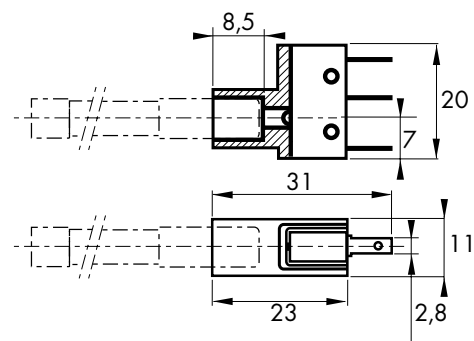
Main Characteristics

Code	AC Insulation voltage rating (***)	Positive operating voltage/current	Current rating	Current	Interrupting rating						AC voltage withstand test (*)	Impulse voltage test Uimp1.2/50 µs (**)	Fire class according to UL 94
					Non inductive circuit			Inductive circuit : L/R = 25ms					
					30V	110V	250V	30V	110V	250V			
MC 6,3 GR 2-5 N	1000 V	20 V 100 mA	5 A	50/60 Hz	-	5 A	0,3 A	-	3 A	2 A	3.5 kV	-	H.B.
				DC	4 A	0.4 A	-	3 A	0.4 A	-			
MC 36 GR 2-5	1000 V	20 V 100 mA	5 A	50/60 Hz	-	5 A	5 A	-	5 A	5 A	7.5 kV	-	
				DC	4 A	0.4 A	-	2 A	0.4 A				

* Between power circuit and microswitch terminals as per IEC 60 and 694 (50/60 Hz 1 min duration in dry air)

** Between power circuit and microswitch terminals Uimp: impulse voltage as per IEC 947-1

*** Between power circuit and microswitch terminals



Catalog Number	Ref. Number	Weight (g)	Pack.
MC 6,3 GR 2-5 N (for separate trip-indicator)	Y 310015	10	3

Catalog Number	Ref. Number	Weight (g)	Pack.
MC 36 GR 2-5 (for built-in trip-indicator)	P 092496	10	3



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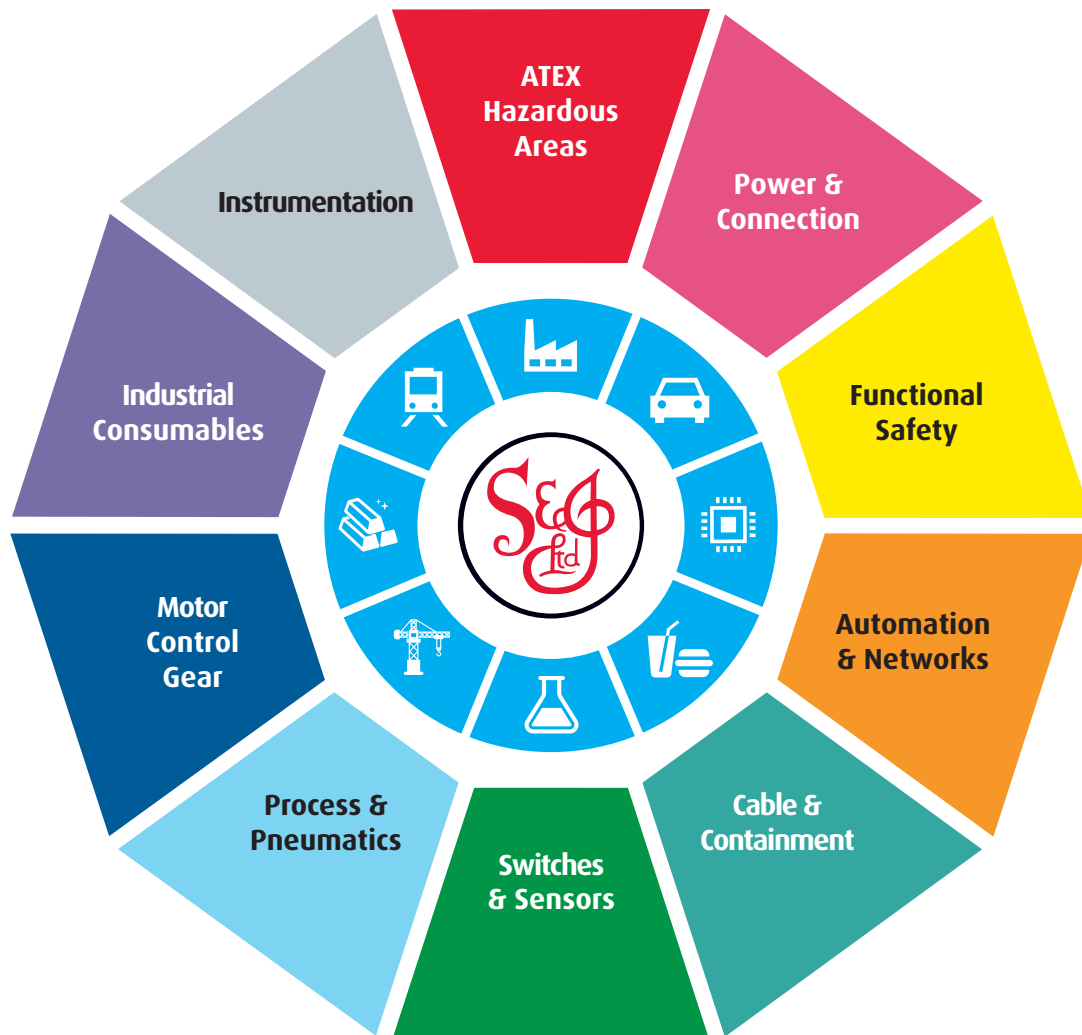
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