WESTCODE
An IXYS Company

Date:- 17 Mar, 2005

Data Sheet Issue:- 1

Ultra Rapid Semiconductor Protection Fuse

BS 88 Round Body Type Fuses 690V

British Standard
Voltage Rating - 690V
Current Ratings from 160A to 710A
aR Characteristics
Sizes 36x55 and 2x36x55

Key Features:

- Extremely high interrupting rating fuses for the protection of power semiconductors as per IEC Standard 60269.1 and 4.
- 690V voltage rating complying with IEC 33
- Non Magnetic construction
- aR Characteristics with current ratings from 75 to 800A in accordance with VDE 636-23 and EC 60269.4
- The models available with or without separate or integrated trip indicator
- Microswitch reference MC 6,3 GR 2-5N

Main Characteristics:

MW : 36x55 without trip indicator

Size	Voltage U_N (V)	Ref:	Micro Switch	Current rating I_N(A)	Pre-arcing I^2t @ 1 ms $I^2t_p(A^2s)$	Total Clearing I^2t @ U_N (A^2s) Ip ≤ 50In	Ip > 50 In	Power Losses @ 0.8 In	In	Tested Interrupting rating
36x55	690V	160MW	N	150	2880	12600	14500	18.9	35.3	200kA @ 690V
		180MW	N	180	5350	22500	25500	19.1	35.7	
		200MW	N	200	9510	40000	46000	17.7	33.1	
		250MW	N	250	21400	97000	110000	18.7	34.5	
		280MW	N	280	29100	125000	145000	20.3	38	
		315MW	N	315	38100	157000	180000	22.7	42.6	
		355MW	N	355	48200	190000	215000	25.9	48.5	
		400MW	N	400	72000	265000	305000	26.7	50	

MWI : 36x55 with separated trip indicator

Size	Voltage U_N (V)	Ref:	Micro Switch	Current rating I_N(A)	Pre-arcing I^2t @ 1 ms $I^2t_p(A^2s)$	Total Clearing I^2t @ U_N (A^2s) Ip ≤ 50In	Ip > 50 In	Power Losses @ 0.8 In	In	Tested Interrupting rating
36x55	690V	160MWI	Y	150	2880	12600	14500	18.9	35.3	200kA @ 690V
		180MWI	Y	180	5350	22500	25500	19.1	35.7	
		200MWI	Y	200	9510	40000	46000	17.7	33.1	
		250MWI	Y	250	21400	97000	110000	18.7	34.5	
		280MWI	Y	280	29100	125000	145000	20.3	38	
		315MWI	Y	315	38100	157000	180000	22.7	42.6	
		355MWI	Y	355	48200	190000	215000	25.9	48.5	
		400MWI	Y	400	72000	265000	305000	26.7	50	

Notes: Minimum operating voltage for integrated trip indicator = 20V
Microswitch reference : MS 6.3 GR 2-5N

MMW : 2x36x55 without trip indicator

Size	Voltage U_N (V)	Ref:	Micro Switch	Current rating I_N(A)	Pre-arcing I^2t @ 1 ms $I^2t_p(A^2s)$	Total Clearing I^2t @ U_N (A^2s) Ip ≤ 50In	Ip > 50 In	Power Losses @ 08 In	In	Tested Interrupting rating
2x36x55	690V	180MMW	N	175	2880	13800	16000	24.7	47.6	200kA @ 690V
		200MMW	N	200	4700	24000	27000	18.4	33	
		235MMW	N	235	6920	34500	39000	21	37.6	
		315MMW	N	315	13700	60000	68000	31.5	59	
		355MMW	N	355	25200	106000	120000	33.1	62	
		400MMW	N	400	21200	100000	110000	34.8	62.3	
		450MMW	N	450	65600	300000	340000	34.6	63.8	
		500MMW	N	500	85600	390000	440000	37.4	69	
		630MMW	N	630	152000	630000	720000	45.4	85.2	
		710MMW	N	710	193000	760000	860000	51.8	97	

MMWI : 2x36x55 with separated trip indicator

Size	Voltage U_N (V)	Ref:	Micro Switch	Current rating I_N(A)	Pre-arcing I^2t @ 1 ms $I^2t_p(A^2s)$	Total Clearing I^2t @ U_N (A^2s) Ip ≤ 50In	Ip > 50 In	Power Losses @ 0.8 In	In	Tested Interrupting rating
2x36x55	690V	180MMWI	Y	175	2880	13800	16000	24.7	47.6	200kA @ 690V
		200MMWI	Y	200	4700	24000	27000	18.4	33	
		235MMWI	Y	235	6920	34500	39000	21	37.6	
		315MMWI	Y	315	13700	60000	68000	31.5	59	
		355MMWI	Y	355	25200	106000	120000	33.1	62	
		400MMWI	Y	400	21200	100000	110000	34.8	62.3	
		450MMWI	Y	450	65600	300000	340000	34.6	63.8	
		500MMWI	Y	500	85600	390000	440000	37.4	69	
		630MMWI	Y	630	152000	630000	720000	45.4	85.2	
		710MMWI	Y	710	193000	760000	860000	51.8	97	

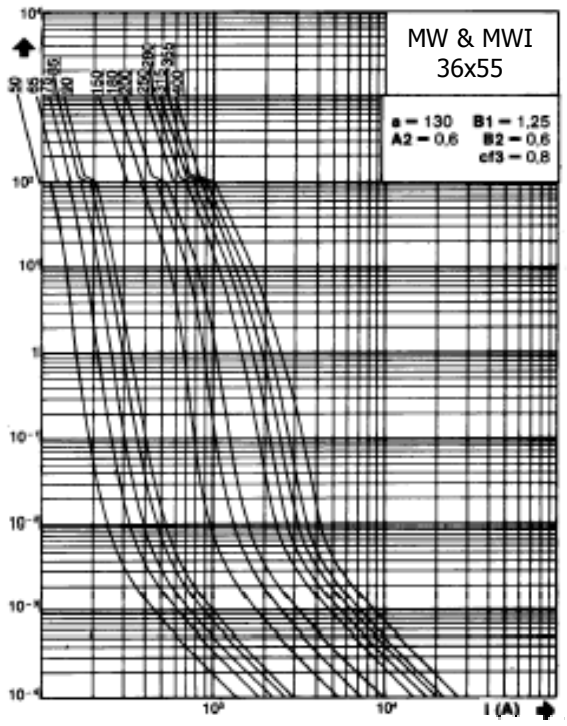
Notes: Minimum operating voltage for integrated trip indicator = 20V
Microswitch reference : MC 36 GR 2.5

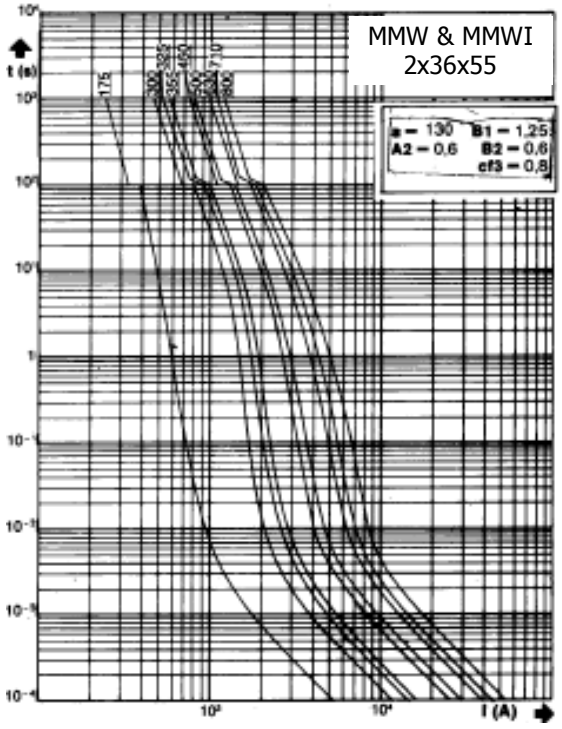
Electrical Characteristics:

Times vs current characteristics

These curves indicate, for each rated current, the pre-arcing time vs. the RMS pre-arcing current.

Tolerance for the mean pre-arcing current ± 10%

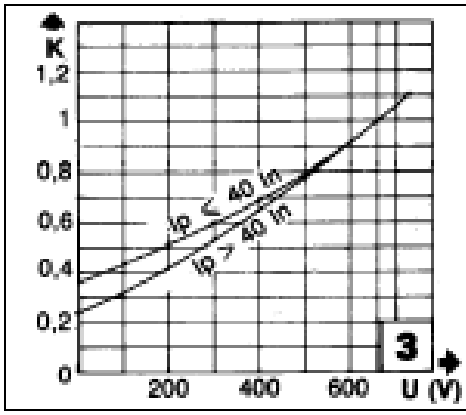




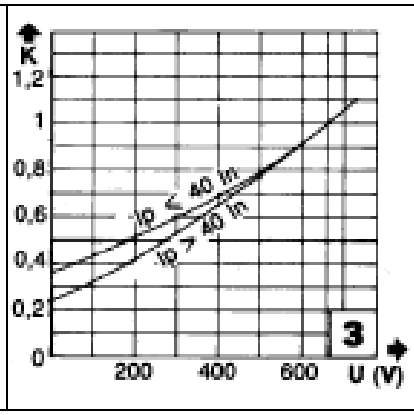
Corrective Factor

The 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.

MW & MWI - size 36x55



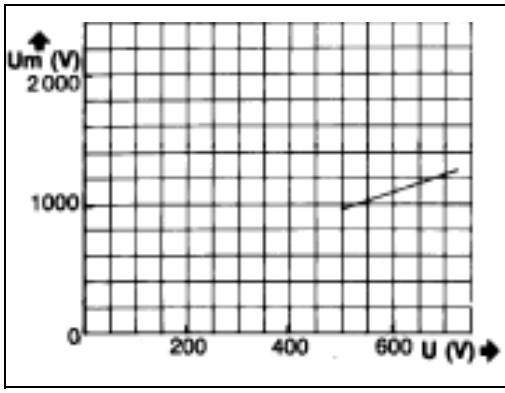
MMW & MMWI - size 2x36x55



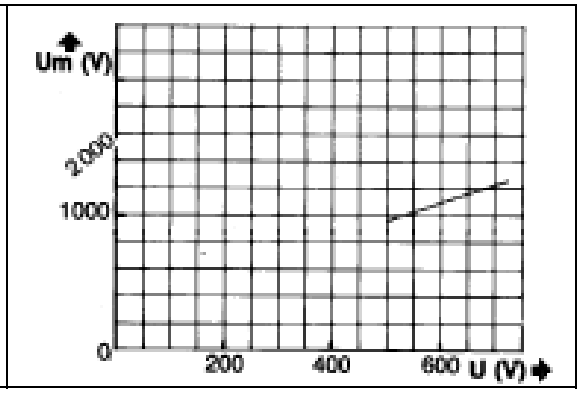
Peak Arc Voltage

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

MW & MWI - size 36x55

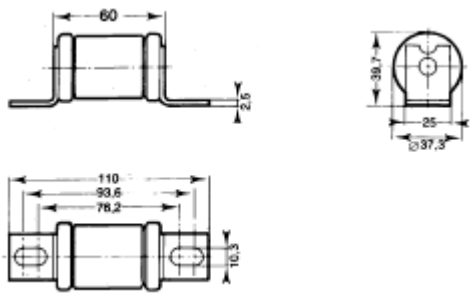


MMW & MMWI – size 2x36x55

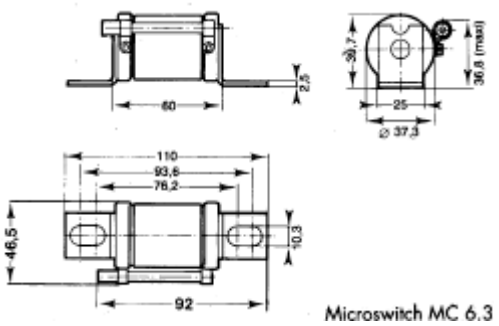


Outline Drawings and Ordering Information:

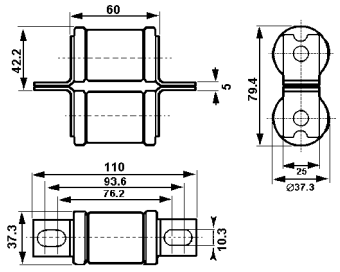
MW – 207gm



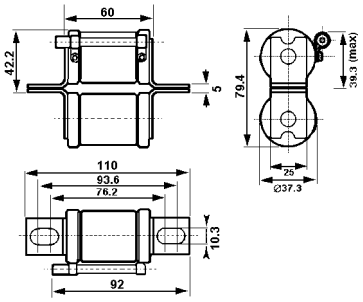
MWI – 207gm



MMW – 400gm



MMWI – 400gm



ORDERING INFORMATION (Please quote code as below)

Style	Voltage	Current Rating (A)	Type	Indicator
BS 88 Round Body	660V	160 - 710	MW & MMW	I

Order code: e.g. **315MMWI** = BS 88 660V Round Body 315Amp fuse with Trip Indicator

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